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Civil Engineering

WASTE MANAGEMENT

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This Air Force Instruction (AFI) implements Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*. It identifies compliance requirements for all solid waste (SW), including hazardous waste (HW), but excludes radioactive waste (except mixed waste) and medical waste. It applies to individuals at all levels who handle and/or manage waste as described above including Air Force Reserve Command (AFRC) and Air National Guard (ANG) units except where noted otherwise. In the United States and its territories, use this guidance with applicable federal, state, and local standards for SW and HW. At installations outside the United States and its territories, implement this AFI consistent with applicable international agreements, Unified Combatant Command (UCC) policy, environmental annexes to operational orders or plans, country-specific Final Governing Standards (FGS) or, in their absence, the Overseas Environmental Baseline Guidance Document (OEBGD) (See AFI 32-7006, *Environmental Programs in Foreign Countries*, to be replaced by AFI 32-7001). In case of conflict, UCC policy, the environmental annex, the FGS, or the OEBGD takes precedence over this AFI. Send comments and suggested improvements on Air Force (AF) Form 847, **Recommendation for Change of Publication**, through channels, to Headquarters, United States Air Force (HQ USAF), Deputy Chief of Staff for Installations, Logistics, and Mission Support, Asset Management & Operations Division (A7CA), 1260 Air Force Pentagon, Washington, DC 20330-1260. Any organization may supplement this instruction. Major commands (MAJCOM), field operating agencies (FOA), and direct reporting units (DRU) send one copy of each supplement to HQ USAF/A7CA; other commands send one copy of each supplement to the next higher headquarters. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Management System (AFRIMS) records disposition schedule (RDS) located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/**.

Additionally, for generation of report(s) as a result of this AFI refer to applicable Reports Control Numbers (RCN) in accordance with AFI 33-324.

SUMMARY OF CHANGES

This interim change clarifies the requirement that operation and maintenance (O&M) costs must be reimbursed first with QRP proceeds earned in the same fiscal year, and if in accordance with the annual provisions provided in law, net QRP proceeds can be carried over to the next fiscal year and available until expended.

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Chapter 1

INTRODUCTION

Section 1A—Overview

1.1. Concept Inherent in the mission of the Air Force are the associated environmental responsibilities of protecting human health and the environment, and ably managing the natural resources whose care has been entrusted to the Air Force. In accordance with RCRA, the Air Force will have a program in place to reduce the volume and toxicity of waste generated. This will be done first through source reduction, e.g., chemical substitution, process change, and other techniques to reduce generation of HW. Where environmentally damaging materials must be used, their use will be minimized. If the use of such materials cannot be avoided, the spent material or waste will be reused or recycled whenever feasible. As a last resort, spent material or waste that cannot be reused or recycled must be disposed of in an environmentally safe manner, consistent with the requirements of all applicable laws, including RCRA. SW and HW management interrelates, or has the potential to interrelate, with the management of many other environmental programs (e.g., air, water, natural resource programs). In addition, the consequences of managing SW and HW can affect the health and safety of an installation's workforce. To this end, it is imperative that the SW and HW management program defined in this AFI be conducted as an integral component of an installation's EMS as defined in higher headquarters' EMS-related policies, procedures, and guidance documents.

1.2. Scope. This AFI describes the Air Forces's management ofmunicipal solid waste (MSW), industrial solid waste, construction and demolition (C&D) debris, hazardous waste, and PCB waste. This AFI does not address radioactive waste (RW) (except mixed waste) or medical waste. RW is addressed in AFI 40-201, *Managing Radioactive Materials in the Air Force*. Medical waste is addressed in AFI 41-201, *Managing Clinical Engineering Programs*. Under the Medical Waste Tracking Act of 1988, Environmental Protection Agency (EPA) concluded that medical waste presents more of an occupational concern than a generalized environmental concern. However, some medical waste can be deemed hazardous and as such, this waste should be handled as a HW under the RCRA regulations.

1.3. Objectives. This instruction provides MAJCOMs, FOAs, DRUs, and installations a framework for complying with standards applicable to SW and HW management. Installations must also comply with applicable state and local standards.

1.4. Applicable Standards and Regulations. The AF complies with applicable federal, state, and local laws and regulations; Executive Orders (EO); US Department of Defense (DoD) and AF policies; and the OEBGD, appropriate FGS, and international agreements. See Attachment 2 for list of pertinent statutes and regulations.

1.5. Overseas Compliance. Air Force activities in foreign countries must implement this AFI consistent with applicable international agreements, UCC policy, environmental annexes to operational orders or plans, and country-specific FGS or, in their absence, the OEBGD. In case of conflict, UCC policy, the environmental annex, the FGS, or the OEBGD takes precedence over this AFI. In the event of conflict notify HQ USAF/A7CA through the appropriate

MAJCOM. AFI 32-7006 (to be replaced by AFI 32-7001) describes the Air Force environmental program in foreign countries.

1.6. Records Retention. While applicable DoD, federal, and state regulations establish minimum records retention periods, federal agencies can require longer record retention. The Air Force *Records Disposition Schedule*, located at **https://www.my.af.mil/gcss-af61a/afrims/afrims**/, prescribes retention periods for specified environmental planning documents.

Section 1B—Responsibilities.

1.7. Secretary of the Air Force (SAF). The Assistant Secretary of the Air Force for Installations, Environment, and Logistics (SAF/IE) promulgates and oversees policy for complying with waste management requirements.

1.7.1. The Deputy Assistant Secretary of the Air Force for Energy, Environment, Safety, and Occupational Health (SAF/IEE) promulgates and oversees policy for hazardous waste compliance and resource management.

1.8. Headquarters, US Air Force (HQ USAF).

1.8.1. Air Force Civil Engineer (HQ USAF/A7C) will formulate policy, allocate resources, and oversee execution of waste management programs throughout the Air Force.

1.8.2. Air Force Director of Logistics Readiness, Supply Chain Management Division (HQ USAF/A4RM) will incorporate SW and HW compliance requirements into supply processes through policies, procedures, and training. HQ USAF/A4RM will also formulate policy, incorporate training, and allocate resources for the transportation of hazardous materials or hazardous waste.

1.8.3. Air Force Director of Maintenance, Maintenance Management (HQ USAF/A4MM) will incorporate SW and HW compliance requirements into weapons maintenance processes through policies, procedures, and training.

1.8.4. Air Force Surgeon General (HQ USAF/SG) will provide oversight/guidance for health aspects of hazardous materials/wastes and incorporate SW and HW compliance requirements into SG processes through policies, procedures, and training.

1.8.5. Air Force Chief of Safety (HQ USAF/SE) will incorporate SW and HW compliance requirements into safety processes through policies, procedures, and training.

1.9. Major Commands, Field Operating Agencies, and Direct Reporting Units.

1.9.1. MAJCOMs, FOAs, and DRUs will provide execution guidance and oversee implementation of this AFI. All references to MAJCOMs include the National Guard Bureau Air Directorate and other agencies HQ USAF recognizes as "MAJCOM equivalent."

1.9.2. The Air Force Center for Engineering and the Environment (AFCEE) will provide technical expertise and regulatory support for the SW and HW programs.

1.9.3. The Air Force Civil Engineer Support Agency (AFCESA) will provide technical expertise and guidance as requested by HQ USAF/A7C.

1.9.4. The MAJCOM Weapons Systems Manager (Maintenance, A4M) will assist the installations in identifying SW and HW impacts associated with weapon systems and forward such weapon system lifecycle impact summaries to the System Program Offices (SPOs).

1.9.5. The Air Force Institute of Technology Civil Engineer and Services School (AFIT/CESS) will provide educational programs in support of the Waste Management Program.

1.9.6. Air Force Legal Operations Agency Environmental Law and Litigation Division (AFLOA/JACE) will provide legal advice and support as required. AFLOA/JACE will ensure coordination with Department of Justice (DOJ), General Counsel, Installations and Environment (SAF/GCN) regarding the payment of penalties. AFLOA/JACE must review and advise on all proposed settlements of regulator actions where the terms of the settlement include provision for the payment of fines, supplemental environmental projects, or other commitments. The Regional Counsels (AFLOA/JACE-ER; AFLOA/JACE-CR and AFLOA/JACE-WR) will assist in resolving enforcement actions processed against Air Force installations.

1.10. Installations.

1.10.1. Installation commander. Installation commanders are ultimately responsible for all aspects of the installation's SW and HW management programs. Installation commanders will:

1.10.1.1. Ensure that appropriate SW and HW management practices consistent with applicable requirements are emphasized to all installation personnel through education and training, to include shop level training, as needed.

1.10.1.2. Ensure that a HW minimization program is in place to reduce the volume and toxicity of waste generated IAW RCRA Section 3002(b) and 42 U.S.C. 6922(b), or analogous OEBGD/FGS requirements, and Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*.

1.10.1.3. Sign all installation SW and HW permit applications as required; this authority shall not be delegated.

1.10.1.4. Sign, or delegate in writing the authority to sign, HW manifests. Signature delegation should remain with active duty and civilian employees only.

1.10.1.5. Ensure that enforcement actions are addressed within the timeframe stated in the action.

1.10.1.6. Ensure that a HW Management Plan (HWMP) and an Integrated Solid Waste Management (ISWM) Plan are current, available, and followed by installation personnel.

1.10.1.7. Ensure the proper disposal of all wastes from the installation.

1.10.1.8. Ensure that a recycling program or Qualified Recycling Program (QRP) with a current business plan is implemented.

1.10.1.9. Designate the QRP manager in writing.

1.10.1.10. Ensure that hazardous materials are made available for reuse to the maximum extent possible before disposal.

1.10.1.11. Ensure that employees handling HW have HW responsibilities reflected in their job descriptions.

1.10.1.12. Ensure that the legal office and Civil Engineer coordinate on any permits, land use restrictions, or other binding agreements with the regulatory agencies.

1.10.1.13. Ensure that the public affairs office, as the CA program's liaison to the community, complies with the public relations provisions in the RCRA permit and keeps the public involved during the CA process.

1.10.2. Environment, Safety, and Occupational Health Council (ESOHC). The ESOHC will review and approve SW and HW policies, review installation industrial solid waste (ISW) and HW management plans and programs, monitor progress, and advise leadership (refer to AFI 90-801, *Environment, Safety, and Occupational Health Councils* for further guidance).

1.10.3. Civil Engineer (CE). CE has overall management responsibility of the installation environmental program including control over SW disposal contracts and HW disposal contracts if funded separately from Defense Reutilization and Marketing Office (DRMO) (disposal and recycling). CE is the installation commander's organization for ensuring that SW and HW management processes are in compliance with all applicable DoD, federal, state, interstate, and local environmental requirements. (Note: Some installations may have an Environmental Management (EM) organization that performs and implements some of the necessary environmental functions listed below). CE will:

1.10.3.1. Act as the liaison office for environmental compliance issues with regulatory agencies, IAW applicable policy.

1.10.3.2. Establish local procedures, prepare and maintain management plans, and provide technical expertise with regard to waste management requirements.

1.10.3.3. Oversee proper programming and recordkeeping procedures.

1.10.3.4. Prepare and modify required permits.

1.10.3.5. Implement procedures (HW Plan, etc.) to ensure/track generators maintain up-to-date waste stream information and profiles, to include implementing the AF-approved automated HW tracking system.

1.10.3.6. Maintain all SW and HW related records in an approved environmental reporting system and IAW retention times prescribed by the Air Force RDS**.**

1.10.3.7. Develop and submit five-year budget requests for facilities, personnel, training, waste disposal, and other waste management needs.

1.10.3.8. Ensure the proper disposal of all wastes from the installation.

1.10.3.9. Ensure that appropriate personnel are adequately trained.

1.10.3.10. Review and ensure ESOHC review of ISW and HW management plans.

1.10.3.11. Solid waste disposal data collection in support of the ISWM program is one of many instances where environmental management and operations must collaborate and coordinate their efforts to ensure that policy, guidance, and implementation are all consistent. Although solid waste disposal data originated with Operations it is submitted through environmental requiring data collection and validation to be a joint effort.

1.10.3.11.1. Facilities Operations (FO) is responsible for the recurring, day-to-day operations and management of recycling centers and non-hazardous solid waste (refuse) collection; and compliance with and implementation of related permit requirements.

1.10.3.11.2. The environmental management function is responsible for overall solid waste and recycling policy, program oversight, regulatory interpretation, and permits (to include applications, renewals, oversight, and reporting) and the development of compliance guidance.

1.10.4. Bioenvironmental Engineering (BE). BE provides environmental and occupational health consultation services IAW AFI 48-145, Occupational and Environmental Health Program."

1.10.5. Chief of Safety (SE). SE will ensure all ISW and HW management plans and procedures comply with applicable safety requirements and ensure HW treatment, storage, or disposal facilities (TSDF), initial accumulation points (satellite accumulation area), and HW Accumulation Sites (HWAS) (90/180/270-day, centralized Accumulation Area, etc.) are operated in compliance with applicable safety standards.

1.10.6. Hazardous Material (HAZMAT) Emergency Planning and Response Teams. This team, designated by the installation commander, ensures adequate preparation and necessary resources for responding to emergency releases IAW AFI 10-2501, *Air Force Emergency Management Program Planning and Operations*, and the Installation Emergency Management Plan (EMP) 10-2. (See AFMAN 32-4013, *Hazardous Material Emergency Planning and Response Guide*, for further guidance).

1.10.7. Mission Support Group (MSG). The MSG is responsible for all transportation, supply, and contracting responsibilities pertaining to HW and SW. The MSG is responsible for any contracting responsibilities concerning HW that are not accomplished via the DRMO HW disposal system.

1.10.7.1. MSG ensures that hazardous materials purchased and approved through the supply system are reutilized to the maximum extent possible before being declared a waste. This also applies to Hazardous Material Facilities (HAZMARTs) (see AFI 32-7086, *Hazardous Materials Management*). The reutilization, transfer, donation, or sale (RTDS) process under the Defense Reutilization and Marketing Service (DRMS) must be the last option utilized before materials are sent to DRMO as waste.

1.10.7.1.1. Base Transportation. Advises on proper shipping containers and transportation requirements. Works with munitions personnel to arrange shipment of waste military munitions.

1.10.7.1.2. Operational Contracting Squadron (OCS). Provides contracting support and expertise for all contracts that will either generate or require the disposal of waste. Provides contracting support and expertise for all waste-related contracts. Contracting Squadron will provide timely and effective contracting support to environmental managers to accomplish SW and HW management, as appropriate. This includes using applicable provisions of the Federal Acquisition Regulation (FAR) and environmental policies and procedures.

1.10.8. Generating Activity. Generating activities will:

1.10.8.1. Manage initial accumulation points and HWAS, where applicable, IAW the installation HWMP and all applicable policies, regulations, and laws.

1.10.8.2. Ensure that waste streams are properly characterized (i.e., to determine whether or not they are hazardous wastes) and appropriate documentation is maintained. Ensure that all new and existing waste streams and/or process changes have been coordinated with CE. Ensure that any waste streams generated are determined to be either hazardous or non-hazardous at the point of generation of the waste. Coordinate process and waste changes with BE to determine any occupational or environmental health risk.

1.10.8.3. Notify CE and BE of all administrative changes in HW activities including, but not limited to, the location or relocation of initial accumulation points and HWAS, and names of accumulation point/site managers and alternates.

1.10.8.4. Ensure that appropriate employees are trained IAW all applicable regulations.

1.10.8.5. Ensure that each generating activity unit organization designates an employee to serve as a focal point for the organization's waste management activities.

1.10.9. Air Force Installation Tenants. Shall comply with the installation SW and HW management programs and applicable environmental laws, unless exempted by DoD/AF instruction. When a tenant is in non-compliance with SW and HW laws, the installation commander has the authority to take whatever action is necessary to require tenants to comply. Installations will ensure through memorandums of understanding or other appropriate means that their tenants:

1.10.9.1. Meet the appropriate tenant responsibilities as spelled out in installation waste management plans.

1.10.9.2. Conduct their activities IAW the installation's permit requirements. Non-DoD tenants should apply for their own EPA identification number when possible.

1.10.9.3. Submit reports required by the installation's HWMP within time frames established.

1.10.9.4. Reimburse the installation for waste disposal costs IAW paragraph 7.10 of AFI 65-601, Volume 1, *Budget Guidance and Procedures*. A tenant who has not been exempted must reimburse the installation for its accumulated charges exceeding $125 for any calendar quarter. Billings that do not exceed $125 for any calendar quarter must also be paid unless they are waived by the installation. See Section 2.5 for Host-Tenant Support requirements.

1.10.9.5. Reimburse the installation for fines and penalties that the installation commander determines are attributable to their activities.

1.10.10. DRMO. DRMOs, under the DRMS, are the DoD HW disposal agent. According to DoD 4160.21-M, *Defense Materiel Disposition Manual*, the Defense Logistics Agency will assume responsibility for the disposition (treatment and disposal or recycling) of HW with the exception of certain categories that will be the responsibility of the installation (such as RW, RCRA regulated solid waste, infectious medical waste, contractor generated waste, etc.) DRMO responsibilities include the following:

1.10.10.1. Provides HW disposal contracting and oversight services to installations;

1.10.10.2. Provides completed uniform hazardous waste manifests and EPA land disposal restriction certifications based on information provided by the waste generators;

1.10.10.3. Provides a copy to CE of all HW manifests and Land Disposal Restriction (LDR) certifications at the time of initial removal of the hazardous waste from the installation; and provide the original of the "closed" HW manifests and a copy of the PCB Certificates of Destruction once received from the TSDF;

1.10.10.4. In addition to the base, DRMO keeps records of all Hazardous Waste Profile Sheets (HWPS) and associated reference numbers, and maintains copies of manifests.

1.10.11. Maintenance Directorate (A4M). The Maintenance Group is responsible for coordinating and reporting the SW and HW impacts of the installation weapon system's lifecycle program and hazardous material reduction efforts, as identified in AFI 32-7086, *Hazardous Materials Management.*

1.10.11.1. Designate the installation Maintenance Group weapon system SW/HW focal point (environmental coordinator) in writing.

1.10.12. Staff Judge Advocate (SJA). When an enforcement action, notice of violation (NOV), RCRA permit, and related documentation/communications are received by the installation, JA will review the relevant documentation and provide legal advice regarding same to the CE and the installation commander. JA will be available, if necessary, to also provide legal support at the hearings regarding those issues.

1.11. Environmental Management System. Consistent with EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, Air Force installations are directed to have an EMS to sustain, restore, and modernize natural and built infrastructure assets to support mission capability, as part of a larger undertaking toward an Air Force Environment, Safety, and Occupational Health Management System (ESOHMS). All Air Force installations and facilities will comply with EO 13423 and Air Force EMS guidance. The Waste Management Program, as a part of the overall EMS, seeks to appropriately plan, implement and operate, check, and review as necessary in a cycle of continual improvement, to best manage waste assets to sustain mission capability. This AFI is organized for consistency with that cycle of continual improvement, in sections for Planning, Implementation and Operation, Checking and Corrective Action, and Management Review.

Chapter 2

HAZARDOUS WASTE MANAGEMENT PROGRAM

Section 2A—Planning

2.1. General Requirements.

2.1.1. HW. A HW is a substance first determined to be a SW, as defined in 40 Code of Federal Regulations (CFR) Part 261.2 that has not been excluded from EPA HW regulations and is either a characteristic HW (i.e., ignitable, corrosive, reactive, or toxic) or a listed HW (listed on the F, K, P, or U lists at Title 40, CFR, Part 261.31-.33), or is identified as a HW by authorized state or host nation requirements incorporated into the FGS. Air Force installations comply with all applicable HW standards and regulations (see section 1.4). There are many exceptions to waste being considered RCRA HW, with household waste being one of them. This AFI cannot address all exempted wastes.

2.1.2. The installation commander is responsible for complying with laws governing HW disposal from all activities on base. Management and disposal of HW by the DRMO or by contractors does not relieve the installation commander of this responsibility.

2.1.2.1. The installation ESOHC will support the installation commander to oversee compliance with HW laws per AFI 90-801, *Environment, Safety, and Occupational Health Councils (ESOHC).*

2.1.2.2. Regardless of who disposes of HW from an installation, or signs the HW manifest, the installation commander is ultimately responsible for the proper final disposal of HW and the accuracy of the HW manifest.

2.1.3. Installations submit programming and budgeting needs for facilities, equipment, and manpower per AFI 32-7001, *Environmental Quality Program,* and AFI 65-106, *Appropriated Fund Support of Morale, Welfare and Recreation (MWR) and Nonappropriated Fund Instrumentalities (NAFIS).*

2.1.4. Installations must have a hazardous waste minimization program to reduce the volume and toxicity of waste generated IAW RCRA Section 3002(b), 42 U.S.C. 6922(b). Preference should be given to source reduction. The Hazardous material process authorization under the Installation Hazardous Material Program (IHMP) is a method, per AFI 32-7086, to document compliance with above requirement.

2.1.5. Installations must strive to eliminate the need for RCRA permits for HW storage, treatment, or disposal, where feasible. Any new initiatives that will require a RCRA permit for on-site activities must be coordinated with HQ USAF/A7CA through the appropriate MAJCOM Asset Management and/or Civil Engineering function.

2.1.6. Installations with RCRA permits for HW storage, treatment, or disposal must comply with those permits. In the event of a conflict, permit requirements supersede this instruction.

2.1.7. Installations that generate HW must have a HW management program that ensures compliance with this instruction and all applicable federal, state, and local laws and regulations; executive orders; DoD and Air Force policies; and, if applicable, the OEBGD,

FGS, and/or international agreements. The program will include: HWMP, training, characterization, turn-in and disposal procedures, disposal contracts, inspections, munitions, mixed waste, permits and recordkeeping (includes compliance with RCRA-CA requirements), and host-tenant support.

2.1.8. Installations and Geographically Separated Units (GSUs) that qualify as Conditionally Exempt Small Quantity Generators (CESQG) under RCRA, and maintain that status for at least a year, do not have to meet the AF-specific requirements of this Chapter as long as they meet the minimum RCRA regulations applicable to CESQG. Exemptions are Sections 2.4, 2.8.2, and 2.9.2, which must be considered, regardless of generator status.

2.2. Hazardous Waste Management Plan.

2.2.1. The HWMP will reflect current regulatory requirements and installation HW activities.

2.2.2. The ESOHC will review and approve the plan annually.

2.2.3. The HWMP must contain, at a minimum, a waste inventory, waste analysis plan (WAP), HW management procedures, reporting procedures, training plan, waste minimization plan, a pollution prevention plan, and a reference to the installation preparedness and spill prevention plan or equivalent plan, to include the HW contingency plan. The HWMP will reference these applicable plans prepared independent of the HWMP.

2.2.3.1. If the DRMO acts as the disposal agent, the HWMP must also address the HW turn-in requirements in U.S. Department of Defense Manual (DoDM) DoD 4160.21-M, *Defense Materiel Disposition Manual*.

2.3. Waste Characterization and Identification.

2.3.1. Waste generating activities will be coordinated with the CE to ensure that waste streams are properly characterized IAW 40 CFR Part 261, applicable DoD, state, and local regulations, and FGS requirements, or OEBGD in the absence of approved FGS. Activities will coordinate with BE to determine any occupational or environmental health risk related to their wastes. Each installation will prepare a WAP that will include a Hazardous Waste Stream Inventory (HWSI) and descriptions on a HWPS.

2.3.2. The WAP identifies hazardous waste streams and sets forth procedures, including specific sampling methods, necessary to ensure proper HW treatment, storage, or disposal. The WAP must be kept on-site. At a minimum, the WAP must include the wastes that were evaluated and analyzed, a description of the testing and analytical methods used, the HW sampling methods used, the location of samples taken for analysis and frequency, sample documentation, sample quality assurance and quality control procedures, and sample request procedures.

2.3.2.1. The WAP should document the reevaluation frequency for installation waste streams to ensure their characteristics have not substantially changed. The WAP should include a description of the re-evaluation procedures and require re-characterization each waste stream when the generating process or operation is changed.

2.3.2.2. Document chemical and physical analysis for each waste stream sampled and retain IAW AFMAN 33-363, *Management of Records*.

2.3.3. HWSI describes all HW streams generated. Installations must have a HWSI that lists at least the generating activity's identity and location, unique waste stream number, and the waste characteristics (e.g., EPA waste code, and state waste code).

2.3.4. Installations will document the waste stream description on DRMS Form 1930, **Hazardous Waste Profile Sheet** or HAF/DRMS-approved variant.

2.3.5. Handle all potentially hazardous, yet uncharacterized wastes, as HW as required by applicable federal, state, or local regulations, and FGS requirements, or OEBGD in the absence of approved FGS, pending determination.

2.3.6. *Universal Waste*. Federally designated universal wastes include batteries, pesticides, mercury-containing equipment, and lamps.

2.3.6.1. The AF encourages the recycling of universal waste IAW 40 CFR Part 273, however, the decision for implementing a recycling program IAW federal, state, and local standards will be the responsibility of the installations.

2.3.6.2. Universal waste regulations streamline HW management standards for these wastes to encourage treatment and recycling programs, and to reduce the quantity of these wastes going to MSW landfills or combustors.

2.3.7. *Mixed Waste (MW)*. MW consists of waste containing HW and radioactive material.

2.3.7.1. Installations that generate MW must comply with RCRA HW disposal, Atomic Energy Act (AEA), State and USAF disposal requirements. MW can be generated during nuclear weapons maintenance activities governed under AEA Section 91b. The Air Force Safety Center (AFSC) provides 91b policy under AFI 91-108, Air Force Nuclear Weapons Intrinsic Radiation and 91B Radioactive Material Safety Program." Consult AFI 91-108 for nuclear weapons related MW disposal requirements. Consult AFI 40-201, Managing Radioactive Material in the US Air Force, for RW and MW disposal requirements not related to nuclear weapons maintenance. CE will advise on RCRA requirements as applicable to storage/handling of MW.

2.3.7.2. All installations will coordinate the disposal of RW and MW with the Installation Radiation Safety Officer (IRSO), who will in turn, coordinate with the Air Force Radioactive Recycling and Disposal (AFRRAD) office, 88 ABW/CEV, Wright-Patterson AFB, OH. The AFRRAD office responsibilities are outlined in AFI 40-201, and it is the sole agent for disposal of AF MW and RW.

2.3.8. *Military Munitions*. All conventional explosive ordnance, whether it remains useable/serviceable or has been designated as unserviceable, will be managed IAW DoD 6055.9-STD, *DoD Ammunition and Explosives Safety Standards*, October 5, 2004, and *DoD Policy to Implement the EPA's Military Munitions Rule,* 1 July 1998, relayed per memorandum from HQ USAF/A4 (previously IL), dated November 2, 1998.

2.3.8.1. Military munitions that are SW or HW for regulatory purposes will be stored and disposed of IAW applicable state and federal regulations, DoD and Air Force guidance, and the Military Munitions Rule found at 40 CFR Part 264/265 Subpart EE and Part 266 Subpart M as appropriate.

2.4. Disposal Contracts.

2.4.1. See paragraph 2.9.2.3 for policy on local contracts. When approved, local contracts must be performance-based IAW AFI 63-124, *Performance-Based Services Acquisition (PBSA).* Consult the servicing contracting office for assistance. Note: AFI 63-124 does not apply to the Air National Guard." Consult with OCS on best approach.

2.4.2. Ensure that any installation contracts for HW disposal which are allowed per Section 2.9.2.3 will not conflict with provisions of an existing DRMO contract or result in breach of a DRMO contract.

2.4.2.1. All local contract development will be coordinated with the contracting officer, Staff Judge Advocate (SJA), installation environmental manager, and installation civil engineer.

2.4.2.1.1. The SJA and the installation environmental manager will review these documents before sending them to the Contracting Officer (CO) to ensure that the documents follow applicable DoD, federal, state, and local regulations and requirements.

2.4.2.1.2. The SJA will determine if the contractor must maintain insurance to cover liabilities associated with improper HW transportation, treatment, or disposal. At a minimum, contracts should require indemnification of the government by the contractor.

2.4.3. The evaluation team must evaluate all offerors' compliance records when selecting a source for HW transport and disposal services. Evaluate all proposed HW transport contractors in the same manner. MAJCOMs must develop procedures to evaluate contract performance and oversight requirements associated with the disposition (treatment and disposal or recycling) of HW, especially for local contracts separate from the DRMS. MAJCOMs and installations should ensure adequate management controls and waivers are in place and documents available for installations not using the DRMS for HW disposal. The checklist and references provided at Attachment 3 can help installations in this endeavor.

2.5. Host-Tenant Support.

2.5.1. The Air Force supports the HW disposal needs of both Air Force and DoD tenants on Air Force installations.

2.5.2. For intraservice support (including Air Force, Air Force Reserve, and the Air National Guard), host Air Force installations plan and fund for their tenants' HW disposal needs, unless paragraph 2.5.4 applies.

2.5.3. Tenants must follow all laws and regulations applicable to the installation as well as the installation HWMP, and provide input and submit reports that the HWMP requires.

2.5.3.1. When tenants do not comply with HW laws, the installation commander may take any action needed to require tenants (and their contractors) to comply at no charge to the government.

2.5.3.2. Tenants responsible for HW management facilities that require permitting must coordinate with the host-installation. The tenant then signs as "operator" and the installation commander signs as "owner."

2.5.4. The tenant will reimburse the installation IAW AFI 65-601 Volume 1, for all waste disposal costs that exceed $125 for any calendar quarter and as documented in a host-tenant agreement. If a tenant organization's accumulated charges do not exceed $125 per calendar quarter, the installation can use its discretion to waive billing the tenant. ***EXCEPTIONS*:** All Defense Working Capitally Funded (DWCF) Air Force tenants and Services activities are not eligible for a billing waiver and must pay their operation and maintenance expenses, including HW disposal costs. Also, AFI 65-601 requires Air Force Research Laboratory (AFRL) workload users and Designated Major Range and Test Facility Base (MRTFB) test mission proponents to fund the direct costs of activities that are measureable and directly attributed to conduct of a RTDE or test mission. HW management and disposition costs attributed to an AFRL or MRTFB activity are to be funded by the proponent."

2.5.5. For interservice/interagency support of a DoD component or agency tenant (including component organizations of other DoD departments and agencies and component organizations of non-DoD departments and agencies, respectively), host installations will seek reimbursement for HW disposal costs for on- and off-installation tenants, following the procedures in AFI 65-601, Volume 1.

2.5.6. If a tenant function is contracted out, this section still applies as the contracted-tenant function would still be considered a tenant function under Air Force policy. The tenant organization still has oversight for that contract function. However, this section does not apply to host-contracted functions, which would be subject to other appropriate sections in this AFI.

Section 2B—Implementation and Operation.

2.6. Training.

2.6.1. All personnel whose work involves HW and their immediate supervisors must receive and successfully complete HW training appropriate to their job responsibilities. Training will occur within three months of an employee's arrival or assignment to HW-related duties. Until the employee has received the appropriate HW training, the employee may only handle HW under the supervision of a HW trained individual. Supervisors and personnel must also successfully complete annual refresher training. Those working at TSDFs and cleanup sites also need to adhere to Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER).

2.6.1.1. Personnel preparing HW for shipment must receive Department of Transportation (DOT) training applicable to the level of the work as prescribed by the DOT regulations IAW 49 CFR Subpart H, Training, and the Defense Transportation Regulation (DTR) DoD Regulation 4500.9-R, Part II, Chapter 204, Hazardous Materials, as follows:

2.6.1.1.1. Persons who certify HAZMAT on shipping papers by any mode of transportation, with the exception of Technical Specialists, must successfully complete an initial 80-hour HAZMAT certification course;

2.6.1.1.2. Persons who only certify HW shipments (that is, authorized by the installation commander to certify USEPA HW manifests and shipping papers) shall successfully complete the training IAW paragraph D.1.c.(2) in DTR DoDR 4500.9-R,

Part II, Chapter 204, or AF-approved equivalent, in lieu of the 80-hour requirement above; and

2.6.1.1.3. Refresher training for HW personnel involved with certifying HW for shipment will be IAW training frequency specified in DTR DoD Regulation 4500.9-R-Part II.

2.6.2. Supervisors shall examine employee training to ensure that adequate site- and task-specific familiarization is accomplished, and supplemented with on-the-job training, as needed.

2.6.3. HW generators must retain personnel training records and those of former employees IAW Air Force RDS (**https://www.my.af.mil/gcss-af61a/afrims/afrims**/), Environmental and Natural Resources Data Training. Copies of certification of HW training must be on-site and available for inspection. Originals of these records may be kept by AF Form 1098, **Special Task Certification and Recurring Training**; AF Form 55, **Employee Safety and Health Record**; installation centralized training records; computer database; or letters of completion.

2.6.3.1. At a minimum, training records should include the student's name, job title, job description, previous HW training, dates of training, instructor's name (or functional area), test score (if applicable), and date of annual refresher course.

2.6.4. MAJCOM/Installations must give priority to using HAF-approved HW education/ training sources such as AFIT HW Course WENV 521 and WESS 010 HW Accumulation Satellite seminar, and the AF HW web-based training and the official AF-approved computer/web-based training.

2.7. Permits, Recordkeeping, and Reporting.

2.7.1. The installation commander will sign environmental permit applications; this is non-delegable. The facility permits shall remain the responsibility of the installation commander as "owner." For installations outside the US and US territories, the host commander or host nation representative may be the signing authority.

2.7.1.1. The installation commander or designated representative will sign a hard copy of the manifests that track off-installation HW shipment and LDR certification.

2.7.1.2. Installations will send their MAJCOM and the appropriate Air Force Regional Environmental Office a copy of each signed HW permit.

2.7.2. Installations will track HW with the EPA HW manifest (or approved documentation) and report HW management activities using the approved standard Air Force automated HW system.

2.7.3. Installations will retain all notices, certifications, manifests, and waste analyses IAW AFMAN 33-363 from the date the HW was shipped to a TSDF or DRMO IAW the Air Force RDS. Installations with Part B permitted TSDFs must maintain all documentation of wastes managed at the facility and all facility records past the closure of the facility and IAW the Air Force RDS.

2.7.4. Maintain all HW disposal records and report HW information IAW Air Force policy and data reporting requirements.

2.8. Accumulation.

2.8.1. Accumulate HW IAW applicable DoD, federal, state, and local laws and regulations, as well as FGS requirements.

2.8.1.1. An initial accumulation point (satellite accumulation area) is an accumulation area at or near the point of generation, which is under the control of the operator of the process generating the waste. Accumulation may continue at an initial accumulation point until 55 gallons of HW or 1 quart of acute HW is collected. If the generator accumulates HW or acute HW in excess of these amounts, the generator must mark the container with the date the amount was exceeded and transfer the HW container to a HWAS (90/180/270-day, centralized Accumulation Area, etc.) or TSDF within three consecutive days, or as dictated by state and local regulations.

2.8.1.2. A HWAS is a centralized location where wastes from several generating activities are placed for up to 90 days for large quantity generators, and 180 or 270 days for small quantity generators as appropriate or as dictated by local regulation or FGS.

2.8.1.3. Installations will maintain the minimal number of initial accumulation points and accumulation sites necessary to perform their mission and meet regulatory requirements.

2.8.1.4. Each waste-generating functional area shall appoint a primary and alternate site manager for each initial accumulation point and/or accumulation site.

2.8.2. Installations are prohibited from the management of non-DoD toxic or HW, or the storage or disposal of non-DoD toxic or HW on DoD installations (10 U.S.C. 2692, U.S. Department of Defense Instruction (DoDI) 4715.6, D.4.10.). Non-DoD toxic or HW is waste generated or stored for activities not related to DoD missions and operations. Exceptions may be allowed for overseas bases subject to an international agreement or a Status of Forces Agreement (SOFA). The Deputy Assistant Secretary of Defense (Environment) may grant exceptions when essential to protect the health and safety of the public from imminent danger (e.g., temporary storage or disposal of non-DoD explosives) (10 U.S.C. 2692(b)). SAF/IE may make determinations of applicable exemptions to this requirement. Installations/MAJCOM shall follow the exception approval process of AFI 32-9003, *Granting Temporary Use Of Air Force Real Property*, (Paragraph 1.20; Outgrants for Storing and Disposing of Non-DoD-Owned Hazardous or Toxic Materials). Also, for non-DoD explosive material management installations shall follow AFMAN 91-201, *Explosive Safety Standards*.

2.8.2.1. When the non-DoD waste meets exception criteria or an exception is granted, the waste's owner must prepare and obtain all needed permits, licenses or leases, meet all financial requirements, and prepare required environmental documentation, including manifests, before using Air Force property. Also, the base must get a written, signed agreement with the owner of the non-DoD waste with appropriate provisions, such as leaving the facility in its original condition, indemnifying the AF, covering the costs of any cleanup required, etc.

2.9. Turn-in and Disposal Procedures.

2.9.1. For HAZMAT.

2.9.1.1. Installations must ensure maximum reuse of HAZMAT prior to disposal. For details on handling excess HAZMAT and ozone depleting substances (ODS), see AFI 32-7086, *Hazardous Materials Management*.

2.9.1.2. HAZMARTs must oversee HAZMAT reuse efforts until turned into DRMO. Installations must ensure that HAZMAT given to the DRMO for RTDS or disposal meets the requirements of DoD 4160.21-M.

2.9.1.3. Installations must ensure that HAZMAT that is deemed unusable or has failed DRMS's RTDS program, is disposed of properly.

2.9.1.4. For proper turn-in and disposal, installations must attach Hazard Communication (HAZCOM) standard compliant labels and material safety data sheet (MSDS) information. Without these items, DRMO will dispose of any HAZMAT as a HW, and the generator will be held responsible for the disposal costs.

2.9.1.5. Installations must not issue, ship, use, or dispose of improperly labeled HAZMAT.

2.9.2. For HW.[1]

2.9.2.1. Installations will follow turn-in procedures in DoD 4160.21-M.

2.9.2.2. Installations must ensure all HW is weighed in the presence of a government-appointed official before removal from the installation for shipment to a TSDF.

2.9.2.3. Installations will use DRMS as the DoD HW disposal agent for routinely generated HW or HW from base operations not connected to a specific contract, unless there is a compelling reason to use contract disposal or per the exemptions listed in paragraph 2.9.2.4. Installations may contract for HW disposal if the commander provides appropriate justification, and the MAJCOM CE (A7C) or A7 approves the waiver. A7 or A7C may delegate in writing the responsibility to the Chief of the Asset Management Division.

2.9.2.4. HW from contracted cleanup/remediation projects or construction/demolition and renovation contracts are not required to go through DRMO for disposal. HW recycling, including universal waste is not considered disposal and can be independently contracted as long as legitimate recycling is consistent with EPA's P2 hierarchy. For these types of contracts performed locally (under the control of installation contracting), the base will comply with appropriate requirements of Section 2.4 of this AFI to ensure legitimate recycling and compliant recycling facilities are being used. MAJCOMs must document management controls for recycling.

Section 2C—Checking and Corrective Action.

2.10. Inspections.

2.10.1. Perform internal and external environmental compliance assessments IAW AFI 32-7045, *Environmental Compliance Assessment and Management Program (ECAMP) or the most current version of the ECAMP AFI.*

[1] As stated in Section 1.5, Air Force activities in foreign countries must implement this AFI IAW the appropriate FGS or, in their absence, the OEBGD.

2.10.2. Installation CE will conduct no-notice inspections of HW generation, accumulation, storage, and disposal activities at least once per year.

2.11. Resource Conservation and Recovery Act-Corrective Action.

2.11.1. The RCRA-CA program is a cleanup program designed to ensure the remediation of hazardous waste, low-level radioactive material, petroleum, oils, lubricants, other waste pollutants, and contaminants associated with known releases located at US installations only. The RCRA-CA process is used to evaluate the nature and extent of contamination, identify the physical and geographic characteristics of the SW management units, and identify, develop, and implement appropriate corrective measures. See the interim *U.S. Air Force RCRA Corrective Action Guide* **http://www.afcee.brooks.af.mil/eq/rcra/caguide/index.asp** for further guidance and latest AFI 32-7020, *The Environmental Restoration Program*.

2.11.2. The RCRA-CA program is a requirement for installations in the US and US territories only.

2.11.2.1. CE will ensure adequately coordinated RCRA-CA program including permits, land use restrictions, and binding agreements with regulatory agencies. Legal community, BE, and public affairs are key partners.

2.11.2.2. Public information should be a key ingredient of the RCRA-CA program. The public should be kept informed as follows:

2.11.2.2.1. Informing the public of documents available for review and the methods for viewing or obtaining them.

2.11.2.2.2. Ensuring that documents can be understood by educated lay people.

2.11.2.2.3. Coordinating with BE any communications to the public regarding health effects and health risks.

2.11.2.3. Ensure that clean-ups are estimated using an Air Force-approved cost estimating tool. Maintain documentation of those estimates used for budgeting and financial reporting. Financial reporting will require management controls to be in place in order to report (cost to complete) data for environmental liability reporting.

2.11.2.4. Ensure a cleanup program consistent with a "one cleanup" approach for all installation clean-up as laid out in the new AFI 32-7020.

2.12. Payment of Fines and Penalties. The installation SJA will coordinate with their MAJCOM, Regional Counsel, and AFLOA/JACE when authorizing installation personnel to commence negotiations with state or local regulators concerning an enforcement action or other compliance matter. The Installation SJA will remain informed or involved in all significant aspects of the negotiations and will continue to coordinate with MAJCOM and appropriate Regional Counsel.

2.12.1. When settling a state or local enforcement action that includes a penalty, the settlement must be memorialized in a written agreement. The written agreement must be forwarded through MAJCOM to AFLOA/JACE. AFLOA/JACE will coordinate with SAF/GCN and DOJ, as required by current policy.

2.12.2. No consent order with state or local regulators will be entered into that provides for any penalty or the payment of any amount without prior coordination with AFLOA/JACE.

2.12.3. The payment of fines or amounts for supplemental environmental projects (SEP) are not eligible for funding by the Environmental O&M accounts.

2.13. Metrics. Ensure metrics are established consistent with DoD policy to check and report on the effectiveness of meeting the objectives of the program.

Chapter 3

INTEGRATED SOLID WASTE MANAGEMENT PROGRAM

Section 3A—Planning

3.1. General Requirements.

3.1.1. Installations will implement ISWM in the most cost effective manner possible while meeting all applicable Air Force, DoD, Federal, local, and FGS non-hazardous waste diversion and recycling requirements.

3.1.2. Installations will make every practical effort to maximize non-hazardous SW and C&D diversion from landfills or incinerators through reuse, donation, recycling, QRPs, composting and mulching, or other waste diversion activities to optimize reduction in both the volume of solid waste disposed and overall cost of non-hazardous solid waste management.

3.1.3. SW manager will make systematic waste diversion or disposal decisions based on the DoD ISWM hierarchy: source reduction, reuse, donation, recycling, composting/mulching, incineration with energy recovery, incineration for volume reduction, other forms of volume reduction and finally landfill disposal.

3.1.4. An installation recycling program consists of handling, storage, collection, disposal, record keeping, and reporting.

3.1.4.1. Whenever possible, installations should conduct direct sales of recyclable commodities through an installation QRP. A QRP requires the additional program components of funding; economic and business analysis; and proceeds distribution and management. See section 3.6.3 for more information in the QRP.

3.1.4.2. Installations are required to strive to divert/recycle items including, but not limited to, plastic, metals, glass, used oil, batteries, and tires. Justify lack of recycling efforts in the QRP Business Plan required in 3.6.3.4. (see Table 3-1 for list of QRP-eligible items)

3.1.5. Non-hazardous solid waste requirements for installations located in foreign countries are provided in the appropriate international agreements and the appropriate FGS or, in their absence, OEBGD, or applicable sections of this AFI.

3.2. Integrated Solid Waste Management Plan.

3.2.1. Installations must have a complete ISWM Plan. The ISWM Plan contains guidance for managing MSW, compost materials, C&D debris, and ISW. An ISWM Plan supports the development and implementation of state plans required by RCRA Subtitle D.

3.2.2. All ISWM Plans must be reviewed annually, updated as appropriate, and approved by the installation ESOHC. Regulatory-required ISWM Plans must be approved and signed by a representative authorized to obligate the installation.

3.2.2.1. To ensure compliance with applicable federal, state, and FGS requirements, ISWM Plans will contain sections that address the following: Purpose; Authority; Responsibility; Introduction or Executive Summary; Program Elements; Disposal and

Diversion Options; Waste Streams--Management Methods and Opportunities; Plan Implementation; Solid Waste Diversion Goals; Materials Prohibited from Waste Streams; Public Awareness, Education and Outreach; On-Site MSW Landfills; Management of C&D debris; Management of Industrial Solid Waste; Management of Overseas Refuse (if applicable); Recordkeeping and Reporting; and Programming and Budgeting. They must also include the QRP Business Plan as an appendix, if the installation operates a QRP.

Section 3B—Implementation and Operation.

3.3. Recordkeeping and Reporting.

3.3.1. Maintain ISWM operating records IAW the Air Force RDS.

3.3.2. Collect and maintain all solid waste diversion and disposal data and report upon request to AFCEE for compilation and ultimate submission for the Annual Report to Congress IAW 10 USC §2706(b), Public Law 102-484, and EO 13423 section 3.

3.3.2.1. MAJCOMs must establish procedures for installations to maintain supporting document on file for solid waste diversion reporting.

3.3.2.2. MAJCOMs must review and validate installation ISWM data prior to final submittal to AFCEE.

3.3.3. Solid Waste contractors shall provide copies of weight certificates, shipping receipts, financial statements, and all other related documentation for installation records reporting as required.

3.3.4. Retain the following documents for DRMO recyclable material sales: DD Form 1348-1A, **Issue Release/Receipt Document**; or approved local form, Standard Form 1080, **Voucher for Transfers Between Appropriations and/or Funds***;* and copies of checks received for payment or funds transfers.

3.3.5. QRP Recordkeeping. Retain records of QRP operating and overhead costs IAW the Air Force RDS.

3.3.5.1. QRP operating records should include, but are not limited to: purchase of equipment, maintenance costs, program operations and expansion, labor costs, training, publicity, and overhead for processing recyclable materials.

3.3.5.2. Retain the following documents for recyclable material direct sales: quotation forms/invitation for proposal/invitation for bid, weight certificates, shipment receipts, cashier record, deposit record, check copy, and letters to buyers.

3.3.5.3. Retain records on the receipt, management, and distribution of QRP proceeds.

3.3.5.4. MAJCOMs must periodically review and provide oversight for installation QRP financial performance (i.e., appropriated funds support, revenues, and costs) and budget clearing (suspense) account balances and ensure appropriated recycling costs are reimbursed appropriately.

3.3.5.5. MAJCOMs must establish procedures for installations to ensure they meet the requirements set forth in Section 3.6.3.5.3.

3.3.6. Owners or operators of MSW landfill (MSWLF) units must comply with the recordkeeping requirements of 40 CFR Part 258.29, or the Air Force RDS, whichever is more stringent.

3.4. Handling, Storage, and Collection.

3.4.1. Installations will ensure that receptacles, collection routes, collection schedules, and collection equipment (trucks/trailers) meet 40 CFR Part 243, *Guidelines for the Storage and Collection of Residential, Commercial and Institutional Solid Waste,* DoDI 4715.4, as well as state, local, and FGS requirements, or OEBGD in the absence of approved FGS.

3.4.1.1. Installations, or their designated contractors, will ensure all permits needed for SW, material recovery facilities and composting handling, storage, and collection (including SW transfer facilities) are obtained, and performs any required maintenance activities.

3.4.1.2. Installations will ensure all federally-owned vehicles collecting and transporting SW meet all applicable federal regulations, including motor carrier safety standards (49 CFR Part 390, *Federal Motor Carrier Safety Regulations*), noise-emission standards for motor carriers in interstate commerce (40 CFR Part 202, *Motor Carriers Engaged in Interstate Commerce*), and federal motor vehicle safety standards (49 CFR Part 580, *Odometer Disclosure Requirements*) only for collection equipment.

3.4.1.3. SW and composting collection equipment must meet the standards of the American National Standards Institute in addition to 40 CFR Part 243 and DoDI 4715.4 requirements.

3.4.2. The installation commander can select military personnel, civilian personnel, or contractors as recycling or composting collection personnel. When a contractor is utilized to collect recyclables or compost materials, the contractor's statement of where to place the materials and the timing of when the materials will be picked-up must meet all applicable DoD, federal, state, local, and FGS requirements or OEBGD in the absence of approved FGS.

3.4.3. Installations will ensure that all scrap metals, instruments, and related recyclable materials sold, or disposed, by direct contract in lieu of processing through the DRMO are considered for radiation survey prior to release from the installation, especially metal parts from weapons systems.

3.4.4. All SW originating from outside the United States must be segregated and disposed of IAW Air Force Joint Instruction (AFJI) 48-104, Quarantine Regulations of the Armed Forces, para. 1.14. This includes things that were not a waste at the point of embarkation but became a waste en route to the United States, e.g. flight meals. Garbage containing foreign food wastes is regulated by the Department of Agriculture and must be placed in leak proof, covered containers and disposed of following port procedures authorized by, or under surveillance of, a USDA representative.

3.5. Municipal Solid Waste.

3.5.1. Installation MSW management will include a recycling program that will strive to divert as much MSW as economically and technically practical, and at a minimum, in accordance with 40 CFR Part 246.200-1, Part 201-1, and Part 202-1 and any state, local, or

FGS requirements or OEBGD in the absence of approved FGS. An installation-recycling program consists of handling, storage, collection, sales, record keeping, and reporting.

3.5.1.1. IAW 40 CFR Part 246.100(f), any installation that has determined, for whatever reason, that they will not follow the requirements of 40 CFR Parts 246.200-1, 201-1, and 202-1 must submit a report to the USEPA Administrator detailing the analysis and rationale used in making that determination. The report must be sent through the MAJCOM/CEV/A7CA to HQ USAF/A7CA for submission to USEPA, after which the USEPA Administrator will then publish the report in the federal register. The following are considered by the USEPA to be valid reasons for not source separating under the individual facts and circumstances: inability to sell the recovered materials due to lack of market and costs so unreasonably high as to render source separation for materials recovery economically impracticable. The report must include a description of alternative actions considered with emphasis on those alternatives that involve source separation for materials recovery.

3.5.2. Installations will integrate waste reduction solutions into ISWM, to include MSW, in the most cost effective manner possible.

3.5.3. Municipal Solid Waste Disposal. Installations must dispose of MSW in a permitted, secure landfill or other state-approved site, such as a thermal-processing facility, and must verify permits and licenses for off-base landfills, incinerators, and thermal treatment facilities used for disposal.

3.5.3.1. If a decision is made to use an on-site disposal option, then construction and operation must follow all applicable DoD, federal, state, local, and FGS requirements or OEBGD in the absence of approved FGS.

3.5.3.2. Installations must obtain siting authorization, permits, and licenses to construct and operate an on-base MSW landfill or thermal treatment facility. For specific guidelines, see 40 CFR Part 240 (*Guidelines for the Thermal Processing of Solid Wastes*) for thermal processing of MSW and 40 CFR Part 258 *(Criteria for Municipal Solid Waste Landfills)* for siting and design of MSW landfills.

3.5.3.3. Before closing an on-base landfill, plan adequate lead-time for meeting post-closure requirements. The post-closure period is typically 30 years for maintenance and groundwater monitoring. Post-closure procedures may require long-term operation of leachate collection and treatment systems or a system for extracting landfill gas.

3.6. Solid Waste Diversion.

3.6.1. Installations will strive to divert as much of their SW stream in the most cost-effective manner possible, keeping in mind the cost savings and cost avoidance from diverting SW from landfill disposal.

3.6.2. Legal Recycling Requirements. In accordance with 40 CFR Part 246.200-1, 201-1, and 202-1, the following mandatory items must be recycled under the following circumstances:

3.6.2.1. Installations with office facilities with greater than 100 office workers must separate high-grade paper at the source of generation, collect it separately and sell it for the purpose of recycling.

3.6.2.2. Installations with greater than 500 families in residence must separate used newspaper at the source of residential generation, collect it separately, and sell it for the purpose of recycling.

3.6.2.2.1. Public Private Ventures (PPV) or privatized housing developments that are not considered federal entities cannot be held to the installation's ISWM Plan or recycling requirements unless the lessee has agreed to abide by the installation's regulations through a written agreement. (PPV housing developments that are not considered federal entities are subject to the local and/or municipal solid waste laws and regulations).

3.6.2.3. Installations that generate greater than 10 or more tons of waste corrugated cardboard containers per month must separately collect it and sell it for the purpose of recycling.

3.6.2.4. Installations will strive to divert other non-hazardous solid waste materials such as, but not limited to, metals, plastic, glass, used oil, tires, and batteries. (See table 3-1 for list of QRP-eligible items).

3.6.2.5. Installations will conduct annual opportunity assessments of their SW stream to identify source reduction potential and additional recyclable materials.

3.6.3. QRPs. Installations that intend to sell recyclable materials directly and retain the proceeds, must operate their recycling program as a QRP IAW 10 U.S.C. 2577, 32 CFR Part 172 (b), and DoD QRP policies.

3.6.3.1. The QRP must comply with applicable federal, state, and local laws and requirements; Executive Orders; DoD and AF policies.

3.6.3.2. The installation commander is responsible for the implementation of a QRP and must designate a QRP manager IAW 1.10.1.9 by issuing a QRP designation/appointment letter. The installation ESOHC will work with the installation commander to oversee the QRP.

3.6.3.3. The lack of an existent and related warrant by the installation contracting organization does not preclude the sale of eligible items by the QRP, either directly or through DRMS. The QRP, and by extension the designated QRP manager, may only conduct sales for any QRP eligible items with anticipated sales proceeds of $15,000 or less. Recyclable items sales exceeding $15,000 must be conducted IAW 40 USC 484 and 41 CFR 102-38.105, Federal Property Management Regulations.

3.6.3.4. QRP Organization. Installations with QRPs will have a single QRP to serve all AF and tenant organizations occupying space on the installation.

3.6.3.4.1. QRP Manager. The QRP manager is the single point of contact for all aspects of the QRP. All recycling sections (appropriated funded activities, Services, Army AF Exchange Service (AAFES), and Defense Commissary Agency (DeCA)) will forward appropriate recycling/diversion and proceeds data and information to the QRP manager as required.

3.6.3.4.2. AF working capital funded (AFWCF) activities have the option of operating their own QRP or processing their recyclables through the installation QRP by Memorandum of Agreement if determined that recycling their own scrap is not

economical. However, installation QRP cannot retain sales proceeds from the sale of AFWCF scrap. All AFWCF scrap proceeds must be returned to the US Treasury.

3.6.3.4.3. The installation QRP will be an umbrella organization, consisting of up to four separate recycling organizations: an appropriated funds activity, a Services (nonappropriated funds [NAF]) operation, an AAFES section, and a DeCA section. These organizations will actively participate in the QRP and are required to coordinate their recycling activities with the QRP manager and provide recycling/diversion and proceeds information for installation-wide reporting.

3.6.3.5. QRP Financial Management. Installation QRPs must develop and maintain a current business plan that addresses QRP management, facilities, manpower, equipment and services, record keeping and auditing, a financial plan and an economic analysis of alternatives to include a market analysis.

3.6.3.5.1. An installation QRP must conduct periodic economic analyses based on industry and market research to justify non-mandatory recycling efforts. Guidance for completing economic and market analysis/assessment, and documentation of the lack of recycling efforts are included in the Air Force QRP Guide.

3.6.3.5.2. Installations must adequately justify (via documentation, economic and market analysis, etc.) any lack of diversion/recycling efforts for mandatory items and recommended items in the QRP business plan.

3.6.3.5.3. MAJCOMs must review installation QRP financial performance, validate installation solid waste and QRP data (prior to up-reporting), and monitor installation QRP treasury account suspense proceed balances to ensure appropriated funds are properly reimbursed.

3.6.3.6. Contracts that generate waste will include provisions that obligate the contractor to participate in the QRP for recyclable wastes generated on the installation, where applicable. Contracts covering government-owned, contractor-operated (GOCO) facilities will include provisions that obligate the contractor to participate in the installation QRP or if one does not exist, establish their own QRP. To the extent required by law, existing contracts covering GOCO facilities must be modified to incorporate these QRP provisions.

3.6.3.7. QRP Funding. The QRP funding process includes obtaining and managing start-up costs, recurring operating costs, as well as managing proceeds from recyclable material sales. These activities will be IAW DoDI 7310.1; DoD Financial Management Regulations Vol. 11a, Chapter 5; AFI 65-601, *Budget and Financial Guidance* (Chapter 10.37); 40 U.S.C. §483 and 484; Defense Finance and Accounting Service-Denver (DFAS/DE) Accounts Receivable Guide; and DFAS/DE 7010.5-R, *Direct, Refund, Reimbursement, and Receivable Transactions at Base Level* (section C.9.4.9).

3.6.3.7.1. Funding requirements will be budgeted and programmed through installation and MAJCOM financial plans and during the Program Objective Memorandum development process.

3.6.3.7.2. The following recurring operation and management (O&M) recycling requirements are facilities operations (FO) (formerly known as Real Property

Services [RPS]) funded requirements and must be programmed under the FO program element code (PEC): on-base landfill operations to meet SW collection and disposal requirements; disposal/tipping fees; necessary facilities; manpower authorizations; equipment, contracts, and associated costs for day-to-day operation of SW, QRP, and recycling programs.

3.6.3.7.3. The following O&M costs are eligible for environmental funding under the pollution prevention PEC as a Level 1 requirement: initial equipment purchase, capital costs, and startup costs to meet DoD/AF SW diversion goals for MSW recycling, composting programs, and C&D diversion programs; equipment to start up MSW recycling and/or recycling programs; establishment of unit and installation recycling centers and holding areas; initial costs for source reduction implementation; education and outreach; updates to the installation ISWM Plan; and studies, assessments, and plans to identify recycling markets and QRP cost-effectiveness (i.e. QRP Business Plans).

3.6.3.7.4. The following O&M costs are eligible for environmental funding under the compliance PEC: initial installation and operation and management of leachate and gas collection systems and monitoring wells required by law, permit, or regulation; waste characterization for solid waste disposal required by law, permit, or regulation.

3.6.3.8. QRP Proceeds Management. Proceeds generated from the direct sale of non-appropriated fund (NAF) owned (Services and AAFES), and DeCA recycling material will be returned to the respective organization in accordance with the corresponding MOA (or other installation-level agreement) when processed through an installation QRP operating with appropriated funds, after O&M costs are offset.

3.6.3.8.1. IAW 32 CFR Part 172.5(f)(1), an installation involved in the direct sales of scrap materials must establish and manage a QRP Budget Clearing (suspense) Account suspense for the collection of QRP proceeds up to $2 million with appropriate oversight as directed in section 3.3.5.4. Any balance in excess of $2 million must be transferred to the Treasury.

3.6.3.8.2. Accounting for recycling proceeds and the distribution thereof shall be IAW DFAS/DE 7010.5-R, *Direct, Refund, Reimbursement, and Receivable Transactions at Base Level, Chapter 9, Billing and Collection Procedures*; DoDI 7310.1, *Disposition of Proceeds from DoD Sales of Surplus Personal Property*, Section 3.3; AFI 65-601, Vol. 1, *Budget Guidance and Procedures*, Chapter 10.37; DoD Financial Management Regulation Volume 11A, Chapter 5, *Disposition of Proceeds from Department of Defense Sales of Surplus Personal Property, and SAF/FMP Accounts Receivable Standard Operating Procedures (July 2008).*.

3.6.3.8.3. In accordance with 10 U.S.C. 2577, Disposal of Recyclable Materials, QRP proceeds must first be used to cover or reimburse costs attributable to the installation recycling program incurred in the same fiscal year as the proceeds are earned including, but not limited to manpower, facilities, equipment, overhead and other capital investments.

3.6.3.8.4. If a surplus remains in the account after reimbursing the appropriation, not more than 50 percent of that balance may be used at the installation for projects for

pollution abatement, energy conservation, and occupational safety and health activities. A project may not be carried out under the preceding sentence for an amount greater than 50 percent of the amount established by law as the maximum amount for a minor construction project. The remaining balance available to a military installation may be transferred to the non-appropriated morale, welfare and recreation (MWR) account of the installation to be used for any MWR activity. Any balance in excess of $2 million must be transferred to the Treasury. The determination of surplus proceeds shall be made annually at the end of each fiscal year.

3.6.3.8.5. Any unused balances of QRP proceeds (up to $2 million) are available until expended (e.g. may be carried over into subsequent fiscal years) subject to a recurring annual provision in an applicable appropriation law. You must confirm with AF/A7CR annually to ensure the annual provision has been extended and enacted.

3.6.3.8.6. The installation QRP must consistently process and track any outstanding recouping actions for un-reimbursed DRMO scrap sales, with the assistance of the appropriate CE/A7C resource personnel.

3.6.3.9. QRP Eligible Items. Categories of recyclable items are explained in Table 3-1.

Table 3.1. Items that may or may not be recycled and directly sold under a QRP.

Items that May be Recycled and Directly Sold under a QRP	Items that May Not be Recycled and Directly Sold under a QRP[2]
Industrial scrap metal from non-AFWCF activity	Scrap generated from AFWCF activity routinely used to offset overhead and customer costs
Industrial scrap metal from AFWCF activities (if determined uneconomical for AFWCF to divert/recycle)	Items that must be demilitarized at any time during its life cycle
Expended firing range brass and gleanings - not requiring demilitarization, which have been crushed, shredded, or otherwise destroyed prior to public sale	Items that can be reused for their original purpose without special processing such as: - Used Vehicles
Beverage containers (metal, glass, & plastic)	- Vehicle or machine parts
Office paper (High-grade, bond, computer, mixed, telephone books and federal register)	- Electrical components
Newspaper	- Unopened containers of oil, paints, or solvents
Cardboard/Pressboard	- Bottles (not scrap glass)
Glass	Commissary store wastes (Bones, fats, and meat trimmings) and Exchange store wastes
Plastics	Repairable items not processed through the disposal cycle
Scrap wood	Fuels
Rags/Textile wastes	Ships, planes, or weapons that must undergo demilitarization or mutilation prior to sale

[2] 32 CFR Part 172.2 (b)(3)

Used Oil (except when hazardous waste)	Munitions List items or Strategic List items [3]
Batteries (unless prohibited by law)	Hazardous wastes (including household hazardous waste)
Tires	Precious Metal Scrap[4,5]
Used cooking oils and food wastes from dining facilities	Radioactive Materials
Wire and Cable (Primary and secondary building wiring)	Ozone Depleting Substances
Non-hazardous Construction and Demolition Items (i.e. scrap metal from appliances, copper piping, etc.)	Government Furnished Material

3.6.4. Composting. Installations will, as appropriate, operate a composting program or participate in a regional composting program. Installations may consider participating in existing municipal and community composting programs before implementing an installation-operated composting program. Installation programs should include yard trimmings, tree trimmings, food wastes, and biosolids.

3.6.4.1. Installation-operated composting programs will comply with state, local, and FGS composting regulations or OEBGD in the absence of approved FGS. As part of the ISWM Plan, installations will develop a composting operations plan prior to beginning a composting operation. The operations plan should include operating procedures, safety and emergency procedures, operational checklists, and process troubleshooting. Installations will also maintain facility-monitoring logs to record operational parameters such as turning frequency, temperature readings, watering frequency, and windrow/pile composition.

3.6.4.2. Installation-operated composting programs will observe restrictions of composting putrescible materials.

3.6.4.2.1. Off-airport property composting operations should be located no closer than the greater of the following distances: 1,200 feet from any air operations area or the distance called for by airport design requirements. This spacing should prevent material, personnel, or equipment for penetrating any object free area, obstacle free zone, threshold siting surface or clearway.

3.6.4.2.2. Compost operations located in the proximity of the air operations area should be monitored to ensure that steam or thermal rise does not adversely affect air traffic.

3.6.4.2.3. Compost operations near airport property should NEVER include food or other municipal solid waste.

3.7. Industrial Solid Waste Management Program.

3.7.1. Under RCRA, industrial solid wastes are not considered MSW or HW. Industrial solid wastes primarily consist of manufacturing process wastes, including wastewater and non-wastewater sludges and solids. These include manufacturing wastes from electric power generation, fertilizer and other agricultural chemicals; food and related products or by-

[3] DoDI 4160.21-M, *Defense Demilitarization Manual*
[4] DoDI 4160.21-M, *Defense Demilitarization Manual, Chapter 11*
[5] Defense 16.18. Defense Logistics Agency Memorandum, Disposition Instructions for Precious Metals (PM) Bearing Plant Clearance Material - Fiscal Year 2006, 30 Nov 2005

products; stone, glass, clay, and concrete products; and transportation equipment (see 40 CFR Part 258.2 for the full list of items included as industrial solid wastes). In addition, many states and local governments may have a further definition of industrial solid wastes.

3.7.2. States with an EPA-approved SW management program are responsible for regulating the management of industrial solid wastes. These regulations can vary widely from state to state and may include standards for design and operation of waste management facilities, location monitoring, and recordkeeping.

3.7.3. Industrial solid wastes will be managed IAW paragraphs 3.1, 3.2, 3.3, 3.4 and 3.8 of this AFI.

3.8. Construction and Demolition Debris.

3.8.1. Construction and Demolition Debris General Concepts

3.8.1.1. C&D debris is generated as a result of construction, renovation, or demolition activities. Although C&D debris is usually considered a single waste stream, the composition actually varies with each activity and the type, size, and location of the structures involved. C&D debris is often contaminated by undesirable components and HW or toxic compounds such as asbestos, lead-based paint (LBP), PCB, varnish, creosote, pesticides and adhesives.

3.8.1.2. Disposing of C&D debris in landfills consumes enormous amounts of space and is both economically and environmentally costly. Installations should pursue cost-effective management approaches that decrease the landfill space required for C&D debris, decrease the amount of HW contaminating C&D debris, and help the Air Force further its commitment to pollution prevention.

3.8.1.3. All aspects of installation C&D debris management will be included in the ISWM Plan as required by 3.2.

3.8.1.4. In accordance with section 3.3.2 of this AFI, data on the weight of C&D debris diverted and the weight of C&D debris disposed must be documented and reported. All C&D debris disposal contracts must be reviewed to ensure this requirement is being met. This information must be reported as requested to AFCEE. C&D debris records must be maintained IAW with Section 3.3.1 of this AFI.

3.8.2. C&D Debris Diversion and Disposal

3.8.2.1. C&D debris is considered MSW under RCRA and must be characterized IAW applicable DoD, federal, state or local characterization requirements discussed in paragraph 2.3to determine whether to dispose of it as non-hazardous SW or HW.

3.8.2.1.1. C&D debris samples must reflect all components of the C&D debris.

3.8.2.1.2. Non-hazardous C&D debris may be disposed of in a MSWLF or in a landfill that only accepts C&D debris, depending upon local regulations.

3.8.2.1.3. C&D debris classified as HW must be disposed of in a permitted HW facility. C&D debris determined to be hazardous must be separated from non-HW, appropriately containerized, labeled and properly manifested prior to transportation for final disposal.

3.8.2.2. Many components of C&D debris can be reused and recycled. However, testing or a user's knowledge letter/document may be necessary to determine whether the C&D debris must be managed as HW prior to and during reuse or recycling.

3.8.3. Asbestos-contaminated C&D Debris Management

3.8.3.1. Asbestos is regulated as a hazardous air pollutant under the Clean Air Act; regulations are found at 40 CFR Part 61.140–157 *(Subpart M - National Emission Standard for Asbestos)*. States often have state-specific asbestos disposal requirements.

3.8.3.2. In accordance with AFI 32-1052, *Facility Asbestos Management,* each installation must have an Asbestos Management Plan (AMP) and an Asbestos Operating Plan (AOP).

3.8.3.3. The asbestos-contaminated C&D debris generated from construction, renovation, or demolition activities must be treated as asbestos-containing waste, labeled IAW 29 CFR Part 1926.1101(k), and disposed of IAW 40 CFR Part 61.150 *(Standard for Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying Operations)* and any state-specific transportation and disposal requirements.

3.8.3.4. Maintain waste shipment records for asbestos-containing waste at least two years IAW with 40 CFR Part 61.150(d)(1) or longer if required by the AF RDS.

3.8.3.5. State and local agencies that require handling and licensing procedures for landfills can supply a list of approved or licensed asbestos disposal sites upon request.

3.8.3.6. CERCLA lists friable asbestos as a hazardous substance with a reportable quantity (RQ) of one pound of friable asbestos. Releases of one pound or more friable asbestos must be reported IAW AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*.

3.8.3.7. OSHA promulgated standards for occupational exposure to asbestos. Installations must ensure that personnel involved in asbestos removal and disposal operations comply with OSHA standards.

3.8.3.8. BE will perform health risk assessments of asbestos activities performed by Air Force personnel and make recommendations to protect Air Force personnel from exposure to asbestos during in-house abatement, removal, or disposal activities.

3.8.4. Lead Based Paint-contaminated Construction & Demolition Debris Management

3.8.4.1. Lead has been utilized as an additive and pigment in paints for many years. Lead toxicity is a primary concern, especially for children. Air Force facilities constructed before 1978 may have multiple layers of older paint that are potential sources of lead. Construction work that involves lead-containing materials must be managed IAW applicable federal, state, and local transportation, occupational health treatment, storage, and disposal requirements.

3.8.4.2. LBP that has been removed prior to demolition/construction can be either hazardous or non-hazardous waste depending on the method used to remove the LBP. BE and CE personnel must review the validity of manufacturer claims that, when used to strip or remove the LBP, their product will render the LBP non-hazardous. EPA requires the use of the Toxicity Characteristic Leaching Procedure (TCLP) test to determine if the

lead in a waste stream is a HW. Lead-containing waste is considered hazardous if the concentration of lead analyzed in a TCLP test exceeds 5.0 milligrams lead per liter.

3.8.4.3. Comply with OSHA occupational exposure control guidelines for lead in the construction industry (29 CFR Part 1926.62) for all facility LBP procedures.

3.8.4.4. CE will coordinate LBP activities, including disposal, with the appropriate state, county, and local agencies in advance of actions that may create an LBP hazard.

3.8.4.5. BE will perform health risk assessments of LBP activities performed by Air Force personnel and make recommendations to protect Air Force personnel from exposure to lead during in-house abatement, removal, or disposal activities.

Section 3C—Checking and Corrective Action.

3.9. Inspections.

3.9.1. The installation ISWM program consists of scheduled and unscheduled inspections of installation MSW, industrial solid waste, recycling and compost collection, transfer, and disposal facilities, and the performance of all possible due diligence to ensure local/regional/municipal facilities are compliant.

3.9.2. Installations must perform internal and external environmental compliance assessments according to AFI 32-7045.

3.9.3. Installations must inspect trash receptacles used to collect industrial shop waste to make sure they do not contain HW.

3.9.3.1. Squadron facility managers must ensure that hazardous materials, hazardous waste and recyclables are not disposed of in trash receptacles and conduct periodic squadron spot inspections.

3.9.3.2. Retain inspection records IAW the Air Force Records Disposition Schedule and section 3.3 of this AFI.

3.9.3.3. Establish an ongoing program to inform all installation personnel of prohibited materials in the MSW stream.

3.10. Metrics. Ensure metrics are established consistent with DoD policy to check and report on the effectiveness of meeting the objectives of the program.

Chapter 4

MANAGEMENT OF POLYCHLORINATED BIPHENYL (PCB) WASTES

Section 4A—Planning.

4.1. General Concepts.

4.1.1. PCB bulk product wastes include but are not limited to non-liquid bulk wastes or debris generated from the demolition of buildings and other man-made structures manufactured, coated, or serviced with PCBs. PCB bulk product wastes also include PCB-containing wastes from the shredding of automobiles, household and industrial appliances, or other white goods (e.g. household major appliances); PCB impregnated electrical, sound deadening, or other types of insulation and gaskets; or fluorescent light ballasts containing PCBs in the potting material.

4.1.2. The PCB waste management program consists of the proper management of target PCB equipment, such as transformers and large capacitors containing greater than 50 parts per million (ppm) PCBs.

4.1.3. The Air Force is committed to eliminating target PCB equipment and reducing future liability for cleanup and disposal costs. Such a "PCB-free" designation, however, does not absolve an installation from its PCB management burden. For example, a retro-filled transformer, once declared PCB-free, may currently contain PCB in concentration above 50 ppm due to PCB that has leached back into the oil from the surrounding casing/shell of the transformer. Non-target PCB equipment, including switches, voltage regulators, and small capacitors, also may contain PCBs.

4.1.4. USAF installations outside the US and US territories should refer to chapter 14 of the OEBGD or the country-specific FGS as appropriate, for PCB guidance relevant to those installations.

Section 4B—Implementation and Operation.

4.2. Recordkeeping.

4.2.1. Installations will track PCB disposal with the EPA PCB manifest (EPA Form 8700-22, **Uniform Hazardous Waste Manifest**) and report PCB management activities per 40 CFR Part 61. Forms can be obtained through any source that has been approved by the EPA Manifest Registry.

4.2.1.1. The dates when PCBs or PCB items were removed from service must be recorded on the manifest or continuation sheet that accompanies the PCB waste to commercial storage and disposal facilities.

4.2.1.2. Generators and transporters must keep a copy of the manifest for as long as required by the Air Force RDS from the date the PCB waste was accepted by the initial transporter.

4.2.1.3. The owner or operator of a PCB commercial storage or disposal facility that receives off-site shipments of PCB waste must retain a copy of each manifest or shipping paper as required by the Air Force RDS.

4.2.2. Certificates of disposal must be maintained IAW 40 CFR Part 761.180(a), except that the retention method and period prescribed in the Air Force RDS apply.

4.2.3. Annual document logs must be maintained IAW 40 CFR Part 761.180(a), except that the retention method and period prescribed in the Air Force RDS apply.

4.2.4. Exception reports IAW 40 CFR Part 761.215 are required to be submitted when:

4.2.4.1. A copy of the manifest with the handwritten signature of the owner or operator of the designated commercial storage or disposal facility is not received within 45 days of the date the waste was accepted by the initial transporter.

4.2.4.2. The PCB wastes were transferred to a disposer of PCB wastes (for disposal) on a date within 9 months from the date of removal from service as indicated on the manifest or continuation sheet and the Certificate of Disposal confirming disposal of each PCB waste has not been received within 13 months from the date of removal from service.

4.2.4.3. The PCB wastes were transferred directly (not via a commercial storage facility) to a disposer of PCB wastes (for disposal) on a date within 9 months from the date of removal from service as indicated on the manifest or continuation sheet and the Certificate of Disposal confirms that the disposal of one or more of the PCB wastes was on a date more than 1-year after the date of removal from service.

4.3. PCB Waste Disposal.

4.3.1. Comply with PCB disposal requirements found at 40 CFR Part 761 *(Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce and Use Prohibitions)* and applicable state or applicable local regulation. PCB disposal requirements vary depending on whether the items being disposed are PCB liquids, PCB articles, PCB remediation waste, PCB bulk product waste, or PCB household waste. DoD 4160.21-M, Chapter 10 (Item 26), requires an individual laboratory analysis by gas chromatography (GC)/Electron Capture Detector, conducted after an item is taken out of service for disposal or prior to turn-in, to indicate the amount of PCB in ppm. Concentration assumptions applicable to transformers, electrical equipment, and capacitors are found in 40 CFR Part 761.2 and can be used in lieu of analysis to determine use. ***NOTE:*** Several states regulate PCBs and non-liquid PCBs (NLPCBs) as HW.

4.3.2. PCB liquids (concentrations greater than 500 ppm) are usually found in electric transformers and capacitors. These PCB liquids must be disposed in PCB incinerators. PCB-contaminated liquids (concentrations between 50 and 500 ppm) must also be disposed in PCB incinerators or high efficiency boilers.

4.3.3. PCB Large High or Low Voltage Capacitors (concentrations greater than or equal to 500 ppm) must be disposed in PCB incinerators or approved chemical waste landfills. PCB Small Capacitors (contains less than 1.36 kg (3 lbs.) of dielectric fluid) may be disposed in MSWLFs in accordance with state regulations, as appropriate.

4.3.4. Fluorescent light ballasts containing PCBs in their potting material must be decontaminated or disposed of in a Toxic Substances Control Act (TSCA)-approved PCB disposal facility, as bulk product waste, or as household waste (where applicable).

4.3.5. PCB-contaminated electrical equipment (≥ 50 but < 500 ppm) that have been drained of PCBs are regulated for disposal under 40 CFR Part 761.60(b)(4). These items must be disposed in a MSWLF, a scrap metal recovery oven or smelter, or a TSCA-approved disposal facility.

4.3.6. 40 CFR Part 761.65 (a)(1) limits the storage of any PCB waste to 1-year from the date it was determined to be PCB waste and the decision was made to dispose of it. This date is the date of removal from service for disposal and the point at which the 1-year time frame for disposal begins. The generator of PCB waste is presumed to be in compliance with the 1-year limit on storage if the generator can demonstrate that the storage period prior to delivery to a disposal facility did not exceed 9 months.

4.3.7. PCB-Contaminated C&D Debris: Federal disposal requirements apply to C&D debris contaminated by 50 ppm or greater NLPCBs when originally removed from service, even if current NLPCB concentration is less than 50 ppm. C&D debris that contains less than 50 ppm NLPCBs before removal from service is not regulated.

Chapter 5

MANAGEMENT REVIEW

Section 5A—Planning

5.1. Regulatory Agency Noncompliance Actions. The Installation Environmental function will review management action plans to ensure that outstanding enforcement actions are resolved within the required time frames. Review the response to regulatory agency inspection findings to ensure process owners take timely corrective actions. In case there is a question of the validity of the enforcement action or if there is a conflict between the state agency and the installation, the appropriate REO needs to be consulted for issue clarification and/or liaison with the state.

5.2. Automated Civil Engineer System-Program Management. Use the Automated Civil Engineer System-Program Management (ACES-PM) to plan, program, and budget requirements for waste management compliance and resource management. Environmental managers are reminded it is the Air Force's preference to always pursue a feasible pollution prevention solution first in order to meet a compliance requirement.

5.3. Environment, Safety, and Occupational Health Council. ESOHCs are the appropriate forum for coordinating SW/HW quality reviews and resource management program corrective actions that require cross-functional review, deliberation, and approval. ESOHCs will conduct management reviews to ensure waste management goals are met, implementation and operation procedures are followed, and assessment findings are tracked and completed. The ESOHC also ensures program goals are appropriate and produce actions to provide necessary mission capability and capacity.

Chapter 6

PRESCRIBED AND ADOPTED FORMS

Section 6A— Forms

6.1. Prescribed Forms. None.

6.2. Adopted Forms:

AF IMT 847, Recommendation for Change of Publication

DRMS Form 1930, Hazardous Waste Profile Sheet

AF Form 1098, Special Task Certification and Recurring Training

AF Form 55, Employee Safety and Health Record

DD Form 1348-1A, Issue Release/Receipt Document

Standard Form 1080, Voucher for Transfers between Appropriations and/or Funds

EPA Form 8700-22, Uniform Hazardous Waste Manifest

DEL EULBERG, Maj Gen, USAF
The Civil Engineer, DCS/Logistics Installations & Mission Support

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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AFPD 90-8, *Environment, Safety, and Occupational Health*, 1 September 2004

Air Force *Records Information Management System (AFRIMS) Records Disposition Schedule (RDS)* located at **https://www.my.af.mil/gcss-af61a/afrims/afrims**/

DFAS/DE 7010.5-R, *Direct, Refund, Reimbursement, and Receivable Transactions at Base Level*

DoD 4160.21-M, *Defense Reutilization and Marketing Manual*

DoDD 6050.5, *DoD Hazard Communication Program*

DoD 6055.9-STD**,** *DoD Ammunition and Explosives Safety Standards*

DoDI 4715.4, *Pollution Prevention*

DoDI 4715.5, *Management of Environmental Compliance at Overseas Installations*

DoDI 4715.6, *Environmental Compliance*

DoDI 7310.1, *Disposition of Proceeds from DoD Sales of Surplus Personal Property*

DTR DoDR 4500.9-R-Part II, *Defense Transportation Regulation*

EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*

Public Law 102-386, *The Federal Facility Compliance Act, which amended U.S.C. 6961*

Public Law 102-484, *National Defense Authorization Act for Fiscal Year 1993*

10 U.S.C. 2208, *Working Capital Funds*

10 U.S.C. 2577, *Disposal of Recyclable Materials*

10 U.S.C. 2692, *Storage, Treatment, And Disposal of Nondefense Toxic and Hazardous Materials*

10 U.S.C. 2701, *Environmental Restoration*

10 U.S.C. 2706, *Annual Reports to Congress*

15 U.S.C. 2601, et seq., *Toxic Substances Control Act*

29 U.S.C. 651, et seq., *Occupational Safety and Health Act*

40 USC 484, et seq., *Federal Property and Administrative Services Act of 1949*

42 U.S.C. 6901, et seq., *Resource Conservation and Recovery Act*

42 U.S.C. 9601, et seq., *Comprehensive Environmental Response, Compensation, and Liability Act*

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29 CFR Part 1910, *Occupational Safety and Health Standards*

29 CFR Part 1910.120, *Hazardous Waste Operations and Emergency Response*

29 CFR Part 1910.1025, *Lead*

29 CFR Part 1910.1200, *Hazard Communication*

29 CFR Part 1926.1101, *Asbestos*

29 CFR Part 1926.62, *Lead*

32 CFR Part 172, *Disposition of Proceeds from DoD Sales of Surplus Property*

40 CFR, *Protection of the Environment*

41 CFR Part 101-45 and 101-46, *Sales of Government Personal Property*

41 CFR Part 102-38.105, *Federal Management Regulation; Donation of Surplus Personal Property*

49 CFR, *Transportation*

Abbreviations and Acronyms

AAFES—Army Air Force Exchange Service

AEA—Atomic Energy Act

AEDA—Ammunition, Explosives, and Dangerous Articles

AF—Air Force

AFCEE—Air Force Center for Engineering and the Environment

AFCESA—Air Force Civil Engineering Support Agency

AFWCF—Air Force Working Capital Fund

AFI—Air Force Instruction

AFJI—Air Force Joint Instruction

AFLOA/JACE—Air Force Legal Operations Agency, Environmental Law and Litigation Division

AFMAN—Air Force Manual

AFPAM—Air Force Pamphlet

AFPD—Air Force Policy Directive

AFR—Air Force Regulation

AFRRAD—Air Force Radioactive Recycling and Disposal Office

AFRIMS—Air Force Records Information Management System

AMP—Asbestos Management Plan

AOP—Asbestos Operating Plan

BE—Bioenvironmental Engineering

C&D—Construction and Demolition

CA—Corrective Action

CE—Civil Engineer

CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act

CESQG—Conditionally Exempt Small Quantity Generator

CFR—Code of Federal Regulations

CO—Contracting Officer

DeCA—Defense Commissary Agency

DERA—Defense Environmental Restoration Account

DERP—Defense Environmental Restoration Program

DFAS—Defense Finance and Accounting Service

DFAS/DE—Defense Finance and Accounting Service-Denver

DLA—Defense Logistics Agency

DoD—US Department of Defense

DoDD—US Department of Defense Directive

DoDI—US Department of Defense Instruction

DoDM—US Department of Defense Manual

DOJ—Department of Justice

DOT—Department of Transportation

DRMO—Defense Reutilization and Marketing Office

DRMS—Defense Reutilization and Marketing Service

DRU—Direct Reporting Unit

DWCF—Defense Working Capital Fund

EO—Executive Order

ECAMP—Environmental Compliance Assessment and Management Program

EHS—Extremely Hazardous Substances

EM—Environmental Management

EMS—Environmental Management System

EPA—US Environmental Protection Agency

EPCRA—Emergency Planning and Community Right-to-Know Act

ESOHC—Environment, Safety, and Occupational Health Council

ESOHMS—Environment, Safety, and Occupational Health Management System

FAR—Federal Acquisition Regulation

FGS—Final Governing Standards

FO—Facilities Operations

FOA—Field Operating Agency

FSTR—Full Spectrum Threat Response

GOCO—Government-Owned, Contractor-Operated

GSU—Geographically Separated Unit

HAZCOM—Hazard Communication

HAZMART—Hazardous Material Facility

HAZMAT—Hazardous Material

HAZWOPER—Hazardous Waste Operations and Emergency Response

HMTA—Hazardous Materials Transportation Act

HQ USAF—Headquarters, US Air Force

HQ USAF/A7C—Air Force Civil Engineer

HQ USAF/A7CA—Air Force Deputy Chief of Staff, Installations, Logistics, and Mission Support, Environmental Division

HQ USAF/A4MM—Air Force Director of Maintenance, Maintenance Management

HQ USAF/A4RM—Air Force Director of Logistics Readiness, Supply Chain Management Division

HQ USAF/SG—Air Force Surgeon General

HQ USAF/SE—Air Force Chief of Safety

HW—Hazardous Waste

HWAS—Hazardous Waste Accumulation Site

HWMP—Hazardous Waste Management Plan

HWPS—Hazardous Waste Profile Sheet

HWSI—Hazardous Waste Stream Inventory

IAW—In Accordance With

ISW—Industrial Solid Waste

ISWM—Integrated Solid Waste Management

LBP—Lead-Based Paint

LDR—Land Disposal Restrictions

LG—Logistics Group

MAJCOM—Major Command

MOA—Memorandum of Agreement

MSDS—Material Safety Data Sheet

MSG—Mission Support Group

MW—Mixed Waste

MWR—Morale, Welfare, and Recreation

MSW—Municipal Solid Waste

MSWLF—Municipal Solid Waste Landfill

MRTFB—Major Range and Test Facility Base

NLPCB—Non-Liquid Polychlorinated Biphenyl

NAF—Non-Appropriated Funds

NOV—Notice of Violation

O&M—Operations and Management

OCS—Operational Contracting Squadron

ODS—Ozone Depleting Substance

OEBGD—Overseas Environmental Baseline Guidance Document

OPM—Office of Personnel Management

OSHA—Occupational Safety and Health Administration

PBSA—Performance-Based Services Acquisition

PCB—Polychlorinated Biphenyl

PCN—Program Change Notice

ppm—parts per million

QRP—Qualified Recycling Program

RCRA—Resource Conservation and Recovery Act

RCRA—CA—Resource Conservation and Recovery Act-Corrective Action

RDS—Records Disposition Schedule

REO—Regional Environmental Offices

REO—CRegional Environmental Office Center

RQ—Reportable Quantity

RTDE—Research, Test, Development and Evaluation

RTDS—Reutilization, Transfer, Donation or Sale

RW—Radioactive Waste

SAF—Secretary of the Air Force

SAF/IE—Assistant Secretary of the Air Force (Installations and Environment)

SAF/GCN—Secretary of the Air Force, General Counsel, Installations and Environment

SARA—Superfund Amendments and Reauthorization Act

SE—Chief of Safety

SEP—Supplemental Environmental Project

SJA—Staff Judge Advocate

SOFA—Status of Forces Agreement

SPO—System Program Office(r)

SW—Solid Waste

TCLP—Toxicity Characteristic Leaching Procedure

TRI—Toxic Release Inventory

TSCA—Toxic Substances Control Act

TSDF—Treatment, Storage, and Disposal Facility

U.S.C.—United States Code

WAP—Waste Analysis Plan

Terms and Definitions

Acute Hazardous Waste—Waste that EPA has determined to be so dangerous in small amounts (as listed in 40 CFR Part 261.33(e) in the P and U listed items) that they are regulated the same way, as are large amounts of other hazardous waste.

Air Force Working Capital Fund (AFWCF)—Air Force Working Capital Fund (AFWCF) [formerly Defense Business Operations Fund (DBOF)] was established on 11 Dec 1996 through the restructuring of the DBOF into individual component working capital funds. AFWCF activities sell goods and services to a wide range of customers, including DoD operating forces, Air Force activities, other US government activities and foreign military sales customers. The AFWCF activity groups include Depot Maintenance, Supply Management, and Information Services.

Biosolids—The soil-like residue of materials removed from sewage during the treatment process. During treatment, bacteria and other tiny organisms break sewage down into simpler, harmless organic matter. The organic matter combined with bacterial cell masses, settles out to form biosolids.

Capacitor—A device for accumulating and holding a charge of electricity and consisting of conducting surfaces separated by a dielectric. Types of capacitors are as follows: (1) Small capacitor means a capacitor which contains less than 1.36 kg (3 lbs.) of dielectric fluid. The following assumptions may be used if the actual weight of the dielectric fluid is unknown. A capacitor whose total volume is less than 1,639 cubic centimeters (100 cubic inches) may be considered to contain less than 1.36 kgs (3 lbs.) of dielectric fluid and a capacitor whose total volume is more than 3,278 cubic centimeters (200 cubic inches) must be considered to contain more than 1.36 kg (3 lbs.) of dielectric fluid. A capacitor whose volume is between 1,639 and 3,278 cubic centimeters may be considered to contain less than 1.36 kg (3 lbs.) of dielectric fluid

if the total weight of the capacitor is less than 4.08 kg (9 lbs.). (2) Large high voltage capacitor means a capacitor which contains 1.36 kg (3 lbs.) or more of dielectric fluid and which operates at 2,000 volts (a.c. or d.c.) or above. (3) Large low voltage capacitor means a capacitor which contains 1.36 kg (3 lbs.) or more of dielectric fluid and which operates below 2,000 volts (a.c. or d.c.).

Characteristic Hazardous Waste—A waste which meets the definition of the characteristic of ignitability, corrosivity, reactivity, or toxicity as specified in 40 CFR Part 261, Subpart C.

Conditionally Exempt Small Quantity Generator (CESQG)—These are entities (installations) which generate in a calendar month: a) no more than 220 lbs of non-acute hazardous waste, b) no more than 220 lbs of acute spill cleanup residue, and c) no more than 2.2 lbs of other acute hazardous waste

Defense Working Capital Fund (DWCF)—The management of working capital fund, or industrial, commercial, and support-type activities by the Secretary of Defense through separate accounting, reporting, and auditing. These activities include the Defense Finance and Accounting Service (DFAS), DeCA and DRMS. Proceeds are routinely used to offset customer costs.

Diversion Rate—The total amount of non-hazardous SW, including construction and demolition debris that is diverted from entering a disposal facility through composting, mulching, recycling, reuse, and donation.

Defense Reutilization and Marketing Office (DRMO)—The DRMO is the local/regional office of the DRMS.

Defense Reutilization and Marketing Service (DRMS)—The DRMS is part of the DLA, and was established to consolidate the different military services' disposal operations.

Environmental Protection Agency (EPA) Waste Code—An EPA HW number listed in 40 CFR Part 261, Subpart C (characteristic waste) or Subpart D (listed waste).

Extremely Hazardous Substances (EHS)—Compounds referred to in section III of the Emergency Planning and Community Right-To-Know Act (EPCRA), which are found at 40 CFR Part 355, Appendices A and B.

Final Governing Standards (FGS)—A comprehensive set of country-specific provisions, typically technical limitations on effluent, discharges, etc., or a specific management practice.

Fluorescent light ballast—A device that electronically controls fluorescent light fixtures and that includes a capacitor containing 0.1 kg or less of dielectric fluid.

Generator—***Under RCRA, a***ny person, by site, whose act or process produces hazardous waste identified or listed in Part 261, or whose act first causes a hazardous waste to become subject to regulation (40 CFR Part 260.10). EPA and state environmental regulatory agencies typically consider an Air Force installation as the generator in connection with hazardous waste produced there. Therefore, in this AFI "HW generator" refers to the installation commander or designated representative.

Generating Activity—Each organization (including Air Force and non-Air Force tenants), shop, or work area using an operation or process that first generates a HW stream. The installation HWMP must identify generating activities.

Hazard Communication Standard (HAZCOM)—An Occupational Safety and Health Act requirement, 29 CFR Part 1910.1200, that employers must develop, implement, maintain and provide for their employees at each workplace which describes the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, MSDS and information and training.

Hazardous Constituent—Any component or chemical in a mixture, found in 40 CFR Part 261, appendix VIII or 40 CFR Part 264, appendix IX or on the list of Extremely Hazardous Substances (EHS).

Hazardous Material (HAZMAT)—AFI 32-7086 defines the term HAZMAT as including all items covered under the Emergency Planning and Community Right-to-Know Act (EPCRA) Toxic Release Inventory (TRI) (or other host nation, federal, state, or local) reporting requirement, the OSHA HAZCOM Standard, all Class I and Class II Ozone Depleting Substances (ODS), and materials which can reasonably be anticipated to generate a hazardous waste (e.g., an expired shelf-life pharmaceutical item). The AFI 32-7086 definition does not include munitions or Consumer Use Items exempted by the OSHA HAZCOM Standard.

Hazardous Material Facilities (HAZMART)—The facility on an Air Force installation where the Logistics Group (LG) personnel stock, store, issue, and distribute HAZMAT using the standard base supply system.

Hazardous Waste (HW)—Any solid waste defined as a hazardous waste pursuant to 40 CFR Part 261.3 or authorized state or host nation rules and regulations.

Hazardous Waste Accumulation Site (HWAS)—A location where a generator may accumulate hazardous waste for a specific period of time without requiring a storage permit, or without having interim status. The allowed accumulation time is dependent on the generator's classification and includes 90 days for large quantity generators, 180 days for small quantity generators who transport their waste less than 200 miles for disposal, and 270 days for small quantity generators who transport their waste 200 miles or more for disposal. See 40 CFR Part 262.34.

Hazardous Waste Characterization—The identification, description, and quantification of a HW stream.

Hazardous Waste Management Plan (HWMP)—An installation-developed plan containing guidance for installation personnel on local procedures for managing HW and incorporating pollution prevention practices into HW management. The HWMP should include all tenants, including GOCO facilities that generate HW.

Hazardous Waste Profile Sheet (HWPS)—A document (DRMS Form 1930) that describes the physical and chemical properties of HW.

Industrial Solid Waste (ISW)—Solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under subtitle C of RCRA. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper

industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment.

Industrially Funded—A project funded by a type of governing revolving fund used to finance operating costs of major service units, such as arsenals, depots, and shipyards that produce goods and services as a business-type operation, where the receipts are credited directly to the fund and are available, without further Congressional appropriation, to meet the needs of users. *10 U.S.C. § 2208*

Initial Accumulation Point—A collection point located at, or near, the point of waste generation where wastes are initially accumulated. The area must be under the control of the operator of the process generating the waste. The operator should be near the area often enough to detect a leak within a reasonable time frame. A maximum of 55 gallons of HW or one quart of acute HW may be accumulated at an initial accumulation point. If more than this amount is accumulated, the excess must be moved to a HWAS within three days of exceeding the limit. Unless the quantity limit is exceeded, or state regulations require a limit on storage time (i.e., California), there are no storage time limits that apply to initial accumulation points. Initial accumulation points are also known as satellite accumulation points (SAP).

Integrated Solid Waste Management (ISWM)—The ISWM approach is designed to minimize the initial generation of the materials through source reduction, then through reusing and recycling to further reduce the volume of materials being sent to landfills or incineration.

Liquid Polychlorinated Biphenyl (PCB)—A homogenous flowable material containing PCBs and no more than 0.5 percent by weight non-dissolved material.

Listed Hazardous Waste—A specifically identified solid waste, material, or item listed in 40 CFR Part 261, Subpart D.

Manifest—HW shipping document required by federal or state regulatory agencies for transportation of HW. Manifests that the installation commander or a named representative signs to track HW to a permitted or interim status TSDF. (Refer to 40 CFR Part 262, Subpart B).

Material Safety Data Sheet (MSDS)—Written or printed material concerning a hazardous chemical that is prepared according to 29 CFR Part 1910.1200.

Municipal Solid Waste (MSW)—A subset of solid waste that is defined as durable goods (e.g., appliances, tires, batteries), non-durable goods (e.g., newspapers, books, magazines), containers and packaging, food wastes, yard trimmings, and miscellaneous organic wastes from residential, commercial, and industrial non-process sources.

Non-liquid Polychlorinated Biphenyl (NLPCB)—Materials containing PCBs that by visual inspection do not flow at room temperature (25° C or 77° F). Examples include demolition debris and renovation wastes such as ceiling tiles, flooring, and dried paints.

Overseas Environmental Baseline Guidance Document (OEBGD)—A set of objective criteria and management practices developed by the Department of Defense, pursuant to this Instruction, to protect human health and the environment.

Polychlorinated Biphenyl (PCB) article—Any manufactured article, other than a PCB container, that contains PCBs and whose surface has been in contact with PCBs. PCB articles include capacitors, transformers, electric motors, pumps, pipes, and any other manufactured item that has functions dependent upon its design.

Polychlorinated Biphenyl (PCB) bulk product waste—Waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal was 50 ppm or greater PCBs. PCB bulk product waste does not include PCB liquids, PCB articles, PCB remediation waste, PCB containers, or PCB household waste. PCB bulk product waste can include, but is not limited to: (1) Non-liquid bulk wastes or debris from the demolition of buildings and other man-made structures manufactured or coated with PCBs. PCB bulk product waste does not include debris from the demolition of buildings or other man-made structures that is contaminated by spills from regulated PCBs that have not been disposed or decontaminated IAW storage and disposal provisions. (2) PCB-containing wastes from the shredding of automobiles, household appliances, or industrial appliances. (3) Plastics (such as plastic insulation from wire or cable; radio, television and computer casings; vehicle parts; or furniture laminates); preformed or molded rubber parts and components; applied dried paints, varnishes, waxes or other similar coatings or sealants; caulking; adhesives; paper; Galbestos; sound deadening or other types of insulation; and felt or fabric products such as gaskets. (4)Fluorescent light ballasts containing PCBs in the potting material.

Polychlorinated Biphenyl (PCB) household waste—PCB waste that is: 1) generated by residents on the premises of a temporary or permanent residence for individuals (including individually owned or rented units of a multi-unit construction); and 2) that is composed primarily of materials found in wastes generated by consumers in their homes. PCB household waste includes unwanted or discarded non-commercial vehicles, household items, and appliances generated on the premises of a residence for individuals as a result of routine household maintenance by or on behalf of the resident. Bulk or commingled liquid PCB wastes at concentrations of 50 ppm or greater, demolition and renovation wastes, and industrial or heavy-duty equipment with PCBs are **not** household wastes. EPA has not clearly defined what constitutes the difference between routine household maintenance wastes and renovation wastes.

Polychlorinated Biphenyl (PCB) remediation waste—Waste containing PCBs as a result of a spill, release, or other unauthorized disposal, at the following concentrations: Materials disposed before 18 April 1978, which are currently at concentrations 50 ppm or greater PCBs, regardless of the concentration of the original spill. Materials currently at any volume or concentration where the original source was 500 ppm or greater PCBs, beginning on 18 April 1978, or 50 ppm or greater PCBs beginning on 2 July 1979. Materials currently at any concentration if the PCBs are from a source not authorized for use.

Polychlorinated Biphenyl (PCB) transformer—Any transformer that contains ≥ 500 ppm PCBs. For PCB concentration assumptions applicable to transformers containing 1.36 kilograms (3 lbs.) or more of fluid other than mineral oil, see 40 CFR Part 761.2. For provisions permitting reclassification of electrical equipment, including PCB Transformers, containing ≥ 500 ppm PCBs to PCB-Contaminated Electrical Equipment, see 40 CFR Part 761.30(a) and (h).

Putrescible Waste—Organic materials prone to degrade rapidly, giving rise to obnoxious odors.

Qualified Recycling Program (QRP)—A recycling program that manages proceeds pursuant to 10 U.S.C. 2577 and requires concerted efforts to divert or recover scrap or waste from waste streams and identify, segregate, and maintain the integrity of the recyclable materials to maintain or enhance the marketability of the materials. A QRP includes adherence to a control process providing accountability for all materials processed through program operations.

Reportable Quantity (RQ)—For any CERCLA hazardous substance, the RQ is that listed in the "Final RQ" column of Table 302.4 in 40 CFR Part 302. For an EPCRA EHS, the RQ is that listed in the "Reportable Quantity" column of Appendix A or B in 40 CFR Part 355. For Department of Transportation requirements, the RQ list is found at 49 CFR Part 172.101 Appendix A.

Records Disposition Schedule (RDS)—Air Force Records Information Management System (AFRIMS) recordkeeping requirements as shown in **https://www.my.af.mil/gcss-af61a/afrims/afrims**/.

Solid Waste (SW)—Any discarded material as defined in 40 CFR Part 261.2.

Universal Waste—Certain types of common hazardous wastes for which the EPA or state regulators have streamlined collection and management requirements to reduce the regulatory burden on generators and facilitate environmentally sound collection and proper recycling or treatment. At the Federal level universal wastes include batteries, pesticides, mercury-containing lamps, and mercury-containing equipment. Subject to the universal waste requirements in 40 CFR 273.

Yard Trimmings—Grass clippings, leaves, brush, weeds, Christmas trees, and hedge and tree prunings from residences and businesses. Yard trimmings may also include stumps and brush, but these materials are not normally handled at composting facilities.

Attachment 2

WASTE MANAGEMENT COMPLIANCE STATUTES AND REGULATIONS

A2.1. RCRA, 42 U. *S.C.*, 6901, et seq., as amended by the Hazardous and Solid Waste Amendments, sets minimum standards for managing SW and HW at those DoD Installations within the US and US territories subject to the jurisdiction of US federal law. The RCRA regulations governing SW and HW management generally are found at Title 40 CFR Subchapter I (Part239, Part 240, Part 243, Part 246, Part 247, Part 254-258, Part 260-268, Part 270-273, and Part 279).

A2.2. The Occupational Safety and Health Act, 29 U. S.C. 651, et seq.,, sets federal health and safety standards for employees who work with hazardous substances, training requirements for hazardous waste clean-up operations at RCRA facilities, and emergency response operations, which is also known as HAZWOPER training. The OSHA regulations in 29 CFR Part 1910.1200 describe employer hazard communication requirements, commonly referred to as HAZCOM. HAZCOM requirements for installations within and outside the US and US territories are set forth in US DoDI 6050.5, *DoD Hazard Communication Program*.

A2.3. The Hazardous Materials Transportation Act (HMTA), 49 U. S.C. 1801-1819, requires the Secretary of Transportation to promulgate standards for the interstate and intrastate commercial transportation of hazardous materials. These standards are found at 49 CFR Part 171-180 and also apply to hazardous waste transportation. For overseas installations, there are strict controls on the transnational shipment of hazardous materials and hazardous waste. Failure to properly package and document items may result in violations of local and international law. Contact the DRMO and your MAJCOM JA for guidance about international shipping requirements.

A2.4. TSCA, 15 U. S.C. 2601, et seq., regulates the management and disposal of various chemical substances and mixtures including LBP, PCBs, and asbestos. TSCA regulations are found at 40 CFR Part 700-799, with the regulations governing the management of LBP, PCBs, and asbestos found at Parts 745, 761, and 763 respectfully.

A2.5. CERCLA, 42 U. S.C. 9601, et seq., and the Superfund Amendments and Reauthorization Act (SARA) authorized funds to clean up contaminated sites and provides that the responsible parties reimburse the government for cleanup costs. CERCLA regulations are found at 40 CFR Part 300-374. At the time that SARA was passed, Congress enacted the Defense Environmental Restoration Program (DERP) statute, 10 USC 2701, et seq. That statute created the Defense Environmental Restoration Account (the "DERA account"), which is used to pay for DoD cleanups. Recently, each DoD agency was given its own restoration account, so that the Air Force restoration account is known as the Air Force Environmental Restoration Account or AF ERA.

A2.6. The Federal Facility Compliance Act, Public Law 102-386, which amended RCRA Section 42 U.S.C. 6961, generally waives the federal government's sovereign immunity under RCRA and allows state and federal regulatory agencies to fine federal facilities for violating applicable federal, state, and local SW and HW laws.

A2.7. The following laws and regulations also impact SW and HW management: 10 U.S.C. 2577, *Disposal of Recyclable Materials*; 10 U.S.C. 2692, *Storage, Treatment, And*

Disposal Of Nondefense Toxic And Hazardous Materials; 32 CFR Part 172, *Disposition of Proceeds from DoD Sales of Surplus Personal Property;* and 41 CFR Part 101-45, *Sale, Abandonment or Destruction of Personal Property* and 101-46, *Replacement of Personal Property Pursuant to the Exchange/Sale Authority*.

A2.8. Environmental Protection Agency (EPA) authorized states may adopt or enact regulations as long as those regulations are at least as stringent as federal SW and HW regulations. Most states have SW and HW regulations that are more stringent than federal regulations. Air Force installations must follow authorized state or local SW and HW regulations that are more stringent (but not broader in scope) than the federal regulations.

Attachment 3

AIR FORCE HAZARDOUS WASTE DISPOSAL

Table A3.1. Air Force Hazardous Waste Disposal Contract Checklist.

Air Force Hazardous Waste (HW) Disposal Contract Checklist (as of Jun 07)

This checklist is intended to highlight issues one should consider when making decisions about contracting for hazardous waste disposal. Slightly updated from 1999 version. This checklist is NOT all-inclusive, and is not a substitute for the laws and regulations applicable to hazardous waste management. Refer to 40 CFR 260-279, 49 CFR 171-180, AFI 32-7042 Waste Management, AFPAM 32-7043 Hazardous Waste Management Guide, and applicable state and local regulations for detailed requirements. The AFMC Guide for Contracting for Hazardous Waste Disposal was also referenced to develop this checklist, and contains additional guidance. This checklist assists installations/MAJCOMs in making decisions to contract for HW disposal separate from the DoD-designated Defense Reutilization and Marketing Service (DRMS). DRMS is the HW contracting agent for the Defense Logistics Agency (DLA) and oversees local/regional Defense Reutilization and Marketing Offices (DRMO).

	Decision to Contract for Hazardous Waste Disposal vs. DRMS	
1.	AFI 32-7042 and AFPAM 32-7043 direct that bases use existing Defense Reutilization and Marketing Service (DRMS) contracts for hazardous waste (HW) disposal, **unless** the installation commander decides it is in the best interest of the AF to do otherwise and the MAJCOM **agrees**. Furthermore, DoD 4160.21 M, Chapter 10, Paragraph 4A states "A decision not to use the DLA/DRMS for HW disposal may be made IAW DODD 4001.1 for best accomplishment of the installation mission, and shall be concurred with by the component chain of command to ensure that installation contracts and disposal criteria are at least as stringent as criteria used by DRMS."	
2.	If a problem exists with the DRMS contract or DRMO oversight which precludes their use, then clearly identify the problem the installation is having with DRMO/DRMS and document the answer provided when confronted with the problem.	
3.	Examine current DRMS contracts to determine whether an independent local contract for disposal may create a breach of an existing DRMS contract.	
4.	Identify what resources and other contract management costs will be involved in preparing and managing a local contract (pre-award evaluation, site inspections, solicitation development, post-award monitoring, etc.). Also include the estimated cost for personnel to perform audits as mentioned in checklist item #15 (audit cost should include personnel training).	
5.	If the installation commander has compelling justification to contract for HW disposal rather than use DRMS (e.g., significant cost savings, DRMS support problems), then submit a request for waiver, with justification, to the MAJCOM. Serious good-faith efforts should always be made to resolve any difficulties with DRMS before deciding to use a local contract. Considerable	

	resources are required to put together a local contract, and to administer and monitor the contract.	
	Requirements documents such as Performance Work Statements/Environmental Requirements	
6.	Refer to AFI 63-124, Performance-Based Services Acquisition, for guidance on writing a statement of work and a quality assurance surveillance plan, except for ANG which must consult with their contracting function for best approach.	
7.	Review DRMS solicitation provisions.	
8.	Requirements documents such as Performance Work Statements for transportation, treatment, and disposal must meet or exceed federal, state, and local legal requirements. Refer to 40 CFR 260-279 and 49 CFR 171-180 for federal requirements. Also refer to AFI 32-7042 and AFPAM 32-7043 for Air Force instructions and guidance.	
9.	Staff Judge Advocate and the base environmental manager must review and approve performance work statement and quality assurance plan before submitting to the Contracting Officer.	
10.	Identify what permits (EPA, state, other) are required for the various transporters, treatment, or disposal facilities to be used by the contractor.	
11.	Contracts for HW disposal must require the contractor to ensure its employees receive appropriate training as federal, state, and local law requires.	
12.	Include required FAR and FAR supplement clauses (hazardous waste liability, subcontracting limitations, prohibition on storage and disposal of toxic material, etc). Note that, in general, the FAR has not kept up with rapidly changing environmental requirements, and it may be necessary to rely upon locally developed or modified clauses, or upon those developed by DRMS. Clauses covering financial responsibility issues as they relate to specific environmental liabilities are not found in the FAR or FAR supplements. New clauses may have to be created which ensure that the contractor, at a minimum, meets the financial responsibility requirements of 40 CFR 264 Subpart H.	
13.	Require offerors to indicate which transporters and TSD facilities will be used for each of the types of wastes involved, and to submit EPA ID numbers and copies of all required permits held by the transporters and TSD facilities to be used.	
14.	Contract should state that no change of transporters or Treatment, Storage	

	or Disposal (TSD) facilities will be made without the prior written concurrence of the Contracting Officer, and require that copies of permits be submitted for any proposed transporters or TSD facilities for evaluation.	
15.	Specify in the Requirements documents such as Performance Work Statements that the TSD facilities will be inspected periodically by appropriate base personnel, if appropriate, to ensure wastes are being handled and disposed of properly. Installation and MAJCOM must consult to determine when inspections are appropriate.	
16.	Include pre- and post-award on-site facility reviews and/or inspections in the quality assurance surveillance plans. Inspections should be considered if TSDF information reviewed is not dependable or unreliable to verify compliance.	
17.	Require contractor to provide for alternative treatment or disposal facilities to cover unanticipated events which could preclude treatment or disposal, such as, the proposed facility refusing to accept the waste, going out of business, or otherwise becoming incapable or unsuitable to handle the wastes properly.	
18.	Require that all hazardous waste be weighed in the presence of a DOD employee or DOD appointed official prior to transporting the waste.	
19.	Contracting and environmental personnel should consult with the Staff Judge Advocate's office to determine if there is a legal requirement for the contractor to maintain insurance which will cover liabilities associated with improper transportation, treatment, or disposal of hazardous wastes. Staff Judge Advocate's office should also determine if an indemnification clause should be included in the contract.	
20.	Identify and bill all reimbursable customers. Industrial and revolving fund organizations, NAF, and certain tenants are required to reimburse the installation for HW disposal services. Identify reimbursable requirements in host-tenant agreements.	
	Pre-Award Evaluation of Offerors	
21.	Contact regulatory agencies to determine the present permit status of each facility. Document the facility's RCRA permit status. Check with EPA Regional Offices and appropriate state regulatory agencies to obtain a list of licensed (permitted) contractors. Check with EPA Regional Offices to determine which contractors have been placed on EPA's List of Facilities Prohibited from Receiving Government Contracts. Also, check with base contracting office for list of contractors suspended or debarred from contracting with the DoD. Transporters should be evaluated in the same fashion.	

22.	Determine facility's environmental enforcement record. (Transporters should be evaluated in the same fashion as TSD facilities.)	
	a. In the last 5 years, how many NOVs (Notice of Violation) or other enforcement actions have been taken against the disposal facility? What were they for? What regulatory agencies issued the enforcement actions? Have the deficiencies been corrected? If not, why not, and when will they be corrected?	
	b. Have any lawsuits been filed against the facility in the last 5 years? If so, what for, and what were the outcomes?	
23.	Develop discriminating evaluation criteria to review contractors' technical proposals.	
24.	Air Force personnel with expertise in hazardous waste disposal should visit the TSD facilities to be used by the contractor to inspect the facilities to ensure the accuracy of the data contained in the contractor's technical proposal. MAJCOM/Installations should consult on physical inspections and undertake them if data/information received is not dependable or unreliable.	
25.	Determine overall status/strength of the contractor's business. Examine financial statements, insurance, and business volume.	
	Post-Award Monitoring	
26.	Installation commanders should designate, in writing, manifest-certifying officials.	
27.	HW manifest certifying officials must ensure all waste is weighed in the presence of an authorized DOD official/representative prior to shipment off base, verify that proper items are loaded for shipment, and observe the contractor remove the hazardous waste.	
28.	Base environmental personnel should review the HW manifest after it is returned to the base (generator). Verify that the wastes turned over to the transporter are the same wastes ultimately disposed of in the facility with which the base contracted for treatment or disposal (verify the wastes were properly treated or disposed of and not stored, resold, improperly mixed with other wastes, etc.).	
29.	Monitor the contractor's records, manifests, etc., to ensure they are consistent with the records maintained by the base.	
30.	Comply with manifest requirements, recordkeeping, and reporting requirements, as specified in 40 CFR 262. Specifically, maintain a manifest archive so a comprehensive record of manifests is available. Maintain in the	

	event there is a PRP (CERCLA Potentially Responsible Party) notice relating to a Third Party Site identified at some future time on the basis of an allegation that wastes from this contract contributed to that site.	
31.	Perform on-site facility inspections as needed to verify information received on TSD facilities.	
32.	Update records at least annually by contacting regulatory agencies to determine the present permit status of each facility. Document the facility's RCRA permit status and any enforcement actions. Check with EPA Regional Offices and appropriate state regulatory agencies to obtain a list of licensed (permitted) contractors. Check with EPA Regional Offices to determine which contractors have been placed on EPA's List of Facilities Prohibited from Receiving Government Contracts. Also, check with base contracting office for list of contractors suspended or debarred from contracting with the DoD. Update records for transporters in the same fashion as for TSD facilities.	

Attachment 4

STANDARD VOLUME-TO-WEIGHT CONVERSION FACTORS

Table A4.1. StandardVolume-to-Weight Conversion Factors.

Standard Volume-to-Weight Conversion Factors

B

Category	Recyclable Materials (u/c = uncompacted/ compacted & baled)	Volume	Estimated Weight (in pounds)
FOOD SCRAPS[A]	Food scraps, solid and liquid fats	55-gal drum	412
GLASS	Bottles[B]:		
	Whole bottles	1 yd^3	500-700
	Semicrushed	1 yd^3	1,000-1,800
	Crushed (mechanically)	1 yd^3	1,800-2,700
	Uncrushed to manually broken	55-gal drum	300
	Refillable Whole Bottles[C]:		
	Refillable beer bottles	1 case = 24 bottles	10-14
	Refillable soft drink bottles	1 case = 24 bottles	12-22
	8 oz glass container	1 case = 24 bottles	12
LEAD-ACID BATTERIES	Car[D]	1 battery	39.4 lb
	Truck[E]	1 battery	53.3 lb lead and plastic
	Motorcycle[E]	1 battery	9.5 lb lead and plastic
METALS	Aluminum Cans[F]:		
	Whole	1 yd^3	50-75
	Compacted (manually)	1 yd^3	250-430
	Uncompacted	1 full grocery bag 1 case = 24 cans	1.5 0.9
	Ferrous (tin coated steel cans)[G]:		
	Whole	1 yd^3	150
	Flattened	1 yd^3	850
	Whole	1 case = 6 cans	22
	Major Appliances[E]:		
	Air conditioners (room)	1 unit	64.2
	Dishwashers	1 unit	92
	Dryers (clothes)	1 unit	130

Category	Recyclable Materials (u/c = uncompacted/ compacted & baled)	Volume	Estimated Weight (in pounds)
METALS (cont'd)	Freezers	1 unit	193
	Microwave ovens	1 unit	50
	Ranges	1 unit	181.1
	Refrigerators	1 unit	267
	Washers (clothes)	1 unit	177
	Water heaters	1 unit	131
PAPER	Newspaper[F]:		
	Uncompacted	1 yd^3	360-505
	Compacted/baled	1 yd^3	720-1,000
	12 in. stack	–	35
	Old Corrugated Containers[F]:		
	Uncompacted	1 yd^3	50-150 (300)[H]
	Compacted	1 yd^3	300-500
	Baled	1 yd^3	700-1,100
	Computer Paper[F]:		
	Uncompacted (stacked)	1 yd^3	655
	Compacted/baled	1 yd^3	1,310
	1 case	2,800 sheets	42
	White Ledger[F]:		
	Stacked (u/c)	1 yd^3	375-465/755-925
	Crumpled (u/c)	1 yd^3	110-205/325
	Ream of 20# bond; 8-1/2 in. x 11 in.	1 ream = 500 sheets	5
	Ream of 20# bond; 8-1/2 in. x 14 in.	1 ream = 500 sheets	6.4
	White ledger pads	1 case = 72 pads	38
	Tab Cards[F]:		
	Uncompacted	1 yd^3	605
	Compacted/baled	1 yd^3	1,215-1,350
	Miscellaneous Paper:		
	Yellow legal pads[F]	1 case = 72 pads	38
	Colored message pads[F]	1 carton = 144 pads	22
	Telephone directories[I]	1 yd^3	250
	Mixed Ledger/Office Paper[F]:		
	Flat (u/c)	1 yd^3	380/755
	Crumpled (u/c)	1 yd^3	110-205/610

Category	Recyclable Materials (u/c = uncompacted/ compacted & baled)	Volume	Estimated Weight (in pounds)
PLASTIC[J]	PET (Soda Bottles):		
	Whole bottles (uncompacted)	1 yd^3	30-40
	Whole bottles (compacted)	1 yd^3	515
	Whole bottles (uncompacted)	gaylord	40-53
	Baled	30 in. x 62 in.	500-550
	Granulated	semiload	30,000
	Granulated	gaylord	700-750
	8 bottles (2 L size)	16 L	1
	HDPE (Dairy):		
	Whole (uncompacted)	1 yd^3	24
	Whole (compacted)	1 yd^3	270
	Baled	32 in. x 60 in.	400-500
	HDPE (Mixed):		
	Baled	32 in. x 60 in.	900
	Granulated	gaylord	800-1,000
	Granulated	semiload	42,000
	Other Plastic:		
	Uncompacted	1 yd^3	50
	Compacted/baled	1 yd^3	400-700
	Mixed PET and HDPE (Dairy):		
	Whole (uncompacted)	1 yd^3	32
	Film:		
	Baled	semiload	44,000
	Baled	30 in. x 42 in. x 48 in.	1,100
TEXTILES[I]	Mixed textiles	1 yd^3	175
TIRES	Car Tires:		
	Whole tire[E]	1 tire	21
	Crumb rubber[K]	1 tire	12
	Truck Tires:		
	Whole tire[E]	1 tire	70
	Crumb rubber[K]	1 tire	60
WOOD	Wood chips[L]	1 yd^3	625
	Pallets[F]	—	30-100 (40 avg.)

Category	Recyclable Materials (u/c = uncompacted/ compacted & baled)	Volume	Estimated Weight (in pounds)
YARD TRIMMINGS[F]	Grass Clippings:		
	Uncompacted	1 yd^3	350-450
	Compacted	1 yd^3	550-1,500
	Leaves:		
	Uncompacted	1 yd^3	200-250
	Compacted	1 yd^3	300-450
	Vacuumed	1 yd^3	350
FURNISHINGS[E]	Foam rubber mattress	1 mattress	55
MUNICIPAL SOLID WASTE[M]	Residential waste (uncompacted at curb)	1 yd^3	150-300
	Commercial-industrial waste (uncompacted)	1 yd^3	300-600
	MSW (compacted in truck)	1 yd^3	500-1,000
	MSW (landfill density)	1 yd^3	750-1,250

Conversion Table Sources:

[A] Information obtained from Washington State.

[B] Draft National Recycling Coalition Measurement Standards and Reporting Guidelines presented to NRC membership. October 31, 1989.

[C] Personal communication with a representative from Allwaste. November 6, 1995.

[D] Battery Council International. 1995. 1994 National Recycling Rate Study.

[E] U.S. EPA. 1995. Methodology for Characterization of Municipal Solid Waste in the United States: 1994 Update. EPA530-R-96-001. Washington, DC.

[F] U.S. EPA. 1993. Business Guide for Reducing Solid Waste. EPA530-K-92-004. Washington, DC.

[G] Personal communication with a representative from the Steel Recycling Institute. November 1, 1995.

[H] Information obtained from New Jersey and New York States.

[I] Information obtained from Massachusetts State.

[J] Personal communication with a representative from the American Plastics Council. November 2, 1995.

[K] Personal communication with a representative from the Scrap Tire Management Council. November 6, 1995.

[L] Information obtained from Northeast Forest Products, Martin Mulch Company, and the Solid Waste Association of North America.

[M] Solid Waste Association of North America, Manager of Landfill Operations Training and Certification Course. January 1989. Revised June 1991 and October 1994.